IC 2000-1 TO AFI 11-2KC-135 VOLUME 1, *C/KC-135 AIRCREW TRAINING*

17 JULY 00

★SUMMARY OF REVISIONS

Interim Change (IC) 2000-1 incorporates numerous changes recommended by AMC and other major commands (MAJCOMs). HQ AMC/DOTK is the OPR for this change. Paragraph 1.3.1. added MAJCOM/DO as another approving authority when using flying training hours to accomplish other than direct training requirements. Several changes to Table 1.1. were made and should be reviewed in its entirety. Table 1.2. changed the time limitations for all mission-qualifying boom operators to 120 days. Table 1.3. adds G258A-E and R040. In addition, Table 1.3. now requires pilots and copilots to be proficient in Tanker Rendezvous (N010) and INS Airborne Alignment (N100) and KY 58 Radio Operations (P272) if requalifying in a Pacer CRAG aircraft. G025, Aircraft Field Trip was deleted from Tables 1.3. and 5.1. Tables 1.3., 2.1., and 2.3., now show Emergency Boom Hoist (R230) as a familiarization item for both the pilot and copilot (applicable to Pacer CRAG training only). Table 1.4. changed the instructor evaluation for instructors unqualified 2 years or more from "Recurring" to "Initial" and added "(KC-135)" to the Instructor Designation column. A006, A036, N010, R010, R040 and associated notes where added to Table 1.5. Paragraph 2.5.8.2. adds additional information regarding Pacer CRAG student team certification. The term "MPRS Difference Training" was changed to "MPRS Certification Training." G080 was deleted from Tables 2.1. and 2.3. Tables in chapter 2 have been renumbered. Table 2.4., Pacer CRAG Block 25 to Block 30 Difference Training Requirements, was added. Table 2.1. and 2.3. were updated to reflect the new Block 25 and Block 30 CBT training event identifiers. Table 2.2. changed the copilot requirements for P170, P171, and P180 from "1" to "F." F010 and F020 were added to Table 2.3. and the number of sorties (M001) increased for pilots, copilots, and navigators. Pacer CRAG Differences Training OFT Profiles (G258A-E) are no longer optional for Pacer CRAG Differences Qualification Training. Table 2.5. added the MPRS Instructor Based Training (IBT) events and deleted R160, Radio Silent Breakaway and R180, Radio Silent Visual Signals. G270, LS01 and LS06 were added to Table 3.1. Several notes were added and/or modified to all the Tables. Threat Avoidance Arrivals and Departures (P053, P061, P064, P065), Low Altitude High Speed Departure (P066), Tactics Simulator (G270), Golf Night Heavy Receivers (Q029), and Multi Point Refueling System (Q033) were added to mission qualification requirements in Tables 3.1. and 3.2. F010, F020, and P055 were deleted from Table 3.2. Paragraph 3.4.1. now clarifies Theater Indoctrination training done in conjunction with Mission Qual Training. The exception in Paragraph 4.1.4.1. was reworded and now includes P010. An exception was added to the note in paragraph 4.2.2.1. regarding NAF and MAJCOM evaluators assigned overseas. Quinquennial (QQ) was added to the definition section in Table 4.1. G260 was added to Table 4.1. LS10 in Table 4.1. and 4.2. changed from "A/R" to "T" for all training levels. PP11 in Table 4.1., 4.2., 4.4., and 4.5. changed from "A" to "QQ." G215, G225, and G226 were added to Table 4.2. Table 4.2., LS04 changed to "B" for all training levels and LS10 changed from "A/R" to "T." RR01 was added to Table 4.2. Additional guidance was added to the note to paragraph 4.2.2.1. concerning NAF evaluators. Table 4.3., G110 changed to "A" for all training levels. Notes in Table 4.3. were deleted. In Tables 4.6., 4.7., and 4.8., M005 changed to a quarterly event. M006, Pacer CRAG Block 25 sortie and M007, Pacer CRAG Block 30 sortie were added to Tables 4.6. and 4.7. Table 4.6. now requires a 60 day currency in Tanker Rendezvous (N010) for copilots qualified in Pacer CRAG. Low Altitude High Speed Departures (P006) was added to Table 4.6. Soar Rendezvous (S036) was changed form "A" to "SA" in Tables 4.6., 4.7., and 4.8. P272, KY 58

Radio Operations was added to Table 4.7. and 4.8. N110, Communication Procedures was added to Table 4.8. as a Pacer CRAG only item. G250 was replaced in Table 5.1. with G252-G256. New course identifiers have been included in Attachment 2. Changes to Special Operation procedures are also included. G080, M005, and Q028 event descriptions changed. M006, M007, and Q029 and Q33 were added. P055, Q026, Q030, Q031, Q032, Q081, S003, and S004 are deleted. See the last attachment, IC 00-1, for the complete IC. A (★) indicates revision from the previous edition.

★**Table 1.1. Unit Waivers to AFI 11-2KC-135, Volume 1.**

If waiver is requested by:	Send waiver request to:	Approval or disapproval will be sent to:	With information copies to:
Active Duty AMC Wing or Group	OG/CC to HQ AMC/DOTK	OG/CC	NAF Training Office (HQ AETC/DOFM if applicable to formal training)
97 AMW	Unit training office through 19 AF/DOM to HQ AETC/DOF	97 AMW	HQ AMC/DOTK
ACC Refueling Unit	OG/CC to HQ ACC/XOFS	OG/CC	HQ AMC/DOTK
PACAF Refueling Unit	OG/CC office to HQ PACAF/DOTT	OG/CC	HQ AMC/DOTK
USAFE Refueling Wing	SQ/OG training office to 3 AF/A3 to HQ USAFE/DOT training office	SQ/OG training office via 3 AF/A3	3 AF/A3, 3 AF/DO, and HQ AMC/DOTK
AFRC Unit	HQ AFRC/DOTA	AFRC Unit	HQ AMC/DOTK
ANG Unit	ANG/XOOM	ANG Unit	HQ AMC/DOTK

★1.3.1. Each training mission must be structured to achieve optimum training. Any by-product airlift opportunity resulting from training must not degrade the intended training in any way and must comply with applicable Department of Defense (DoD) instructions. Any use of flying training hours to accomplish other than direct training requirements must be approved by the appropriate MAJCOM/DO or numbered air force commander (ANG/CF for Air National Guard). It is essential that all personnel at all levels prevent the misuse of air mobility resources as well as the perception of their misuse. EXCEPTION: The approval authority for Off-Station Training Flights is the wing commander.

★1.4.3. **Operations Groups**. The operations group will convene a training review panel (TRP) to be chaired by the OG/CC or his designated representative. The operations group will determine frequency, format and content of the meetings. The TRP should review staff and aircrew management actions necessary to complete the squadron's flight and ground training programs. **(USAFE units provide TRP minutes to 3 AF/A33 and HQ USAFE/DOTO. End-of-training-cycle TRP minutes will include end-of-cycle training deficiencies and OG/CC waivers given for semiannual continuation training.)**

★**Table 1.2. In-Unit Training Time Limitations**.

Training	Time Limit
Initial Qualification	90 days
Difference Qualification	90 days
Requalification	90 days
Mission Qualification	90 days (120 days for Boom Operators)
Instructor Upgrade	60 days

NOTE: AFRC/ANG 180 days.

★1.5.1   Units will notify MAJCOM/DOT (ACC/XOF for ACC, ANG/XOT for ANG and HQ AFRC/DOT for reserve units) through channels of aircrew members exceeding upgrade training time limits. (Use the waiver format shown in paragraph **1.2.5.**) Squadron commanders may extend upgrade training time up to 60 days. Extensions in excess of 60 days require MAJCOM/DO approval *(not applicable to AFRC/ANG units).* An extension of training time letter, signed by the unit commander, will state the training difficulty, unit corrective action to resolve and prevent recurrence, and estimated completion date.

★**Table 1.3. In-Unit Requalification Training (RQT) Requirements**.

Code	Training Event	Pilot	CP	N	Boom	Notes
A006	MPRS Certification Training	*1	*1		*1	10,11
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A034	Requalification Course	1	1	1	1	
A036	Pacer CRAG Differences Training	*1	*1	*1	*1	6
A052	Receiver AR Indoctrination	1				
AA01	MAJCOM Qualification Evaluation	P	P	P	P	
C110	Fuel Management Advisory Computer (FMAC) training	1	1			8
C200	Air Force Mission Support System (AFMSS) training	1	1	1		
G130	Instrument Refresher Course (IRC)	1	1	1		
G150	BO TERPS				1	
G230	Crew Resource Management Refresher	1	1	1	1	
★G258A-E	Pacer CRAG Differences Training OFT Profiles	*5	*5		*1	6
G259	Requalification Simulator	5	5			4,5
LS08	Egress Training	1	1	1	1	
LS10	Hanging Harness Training	1	1	1	1	12
M001	Sortie (Does not include MAJCOM Qualification Eval)	5	5	5	5	1,11
★N010	Tanker Rendezvous	*P	*P	P		6
N015	Tanker Alternate Rendezvous	*P	*P	P		6
N016	Tanker Rendezvous Overrun Procedures	*P	*P	P		6
N020	Tanker En Route Rendezvous	*P	*P	P		6
N030	Tanker Point Parallel Rendezvous	*P	*P	P		6
N050	Navigation Leg			2P		
N060	Mission Navigation Leg			P		
N090	Control Time and Position Exercise	*P	*P	P		6
★N100	INS Airborne Alignment	*P	*P	2P		6
N120	ARDA			P		7
N131	En Route Rendezvous (Receiver)	*P	*P	P		3,6
★N132	Point Parallel Rendezvous (Receiver)	*P	*P	P		3,6
N150	Celestial Position			2P		7
N160	General Navigation	P	P	P		7
N160A	FMS Navigation	*P	*P	*P		6
N175	INS/DNS Radar Present Position Update			2P		7
PP01	Flight Physical	1	1	1	1	
PP11	Physiological Training	1	1	1	1	
★P007	Approach to Initial Buffet and Recovery	1	1			4,9

P011	Takeoff, Night	P	P			
P012	Takeoff, Gyro Mode	P	P			
P015	Instrument Departure	4P	4P			
P018	Copilot Takeoff Duties	P	P			
P026	Takeoff and Climb Procedures	4P	4P			
P030	Max Mode T/O, 30 Flap	P	P			
P040	Simulated Engine Failure, Takeoff Continued	3P	3P			
P071	Holding	P	P			
P072	Penetration (Published)	P	P			
P073	En Route Descent	3P	3P			
★P100	Precision Approach	6P	6P			
★P101	ILS Approach	2P	2P			
P102	ILS (Gyro Mode)	2P	2P			
P103	PAR Approach	2P	2P			2
P110	Non-Precision Approach	6P	6P			
★P112	VOR/TACAN/Localizer/FMS Approach	4P	4P			
P113	ASR Approach	2P	2P			2
P130	Circling Approach	1	1			
P160	Missed Approach	4P	4P			
P170	Approach and Go-Around, Simulated Engine-Out	3P	3P			
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			
P180	Approach and Landing, Simulated Engine-Out	3P	3P			
P191	Landing, Full Stop, Reverse Thrust (if applicable)	2P	1P			8
P192	Night Landing	P	P			
P194	Landing, 30-Degree flaps	3P	3P			
P196	Landing, Full Stop	3P	3P			
P200	Touch-and-Go Landing	5P	5P			
P240	Landing Gear Alternate Extension	P	P	3P	3P	
P250	Main Flap Manual Operation	P	P	3P	3P	
P260	HAVE QUICK Radio Procedures	2P	2P			
★P272	KY 58 Radio Operations	*F	*F	P	*P	6
P340	Briefing and Control of Passengers				4P	
P345	In-flight Adjustment and Security of Load				4P	
P360	Mission Planning and Briefing	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P364	Cruise	1				
P366	Checklist Procedures and Use	4P	4P	4P	4P	
P367	Crew Coordination	4P	4P	4P	4P	
P369	Aircraft Equipment Operation	4P	4P	4P	4P	11
Q001	Open-Book Qualification Examination	P	P	P	P	
Q002	Closed-Book Qualification Examination	P	P	P	P	
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	2P				
Q014	Difference Certification (MPRS)	*1	*1		*1	10,11
R010	Receiver AR	2P				3
R020	Receiver AR (Night)	2P				3

★R040	Receiver AR Breakaway and Emergency Separation	2P	2P	2P		
R050	Receiver AR, Tanker Autopilot Off	2P				3
R060	Tanker AR	3P	3P	3P	3P	
R070	Tanker AR Breakaway and Emergency Separation	2P	2P	*2P	3P	*7
R080	Tanker AR Autopilot Off	2P	2P		1F	
R120	Contacts				15P	
R125	Day Contacts				10P	
R130	Night Contacts				5P	
R135	Preparation for Contact Procedures	*1P	*1P		4P	10
R140	Tanker Manual Contact				6P	
R180	Radio Silent Visual Signals	1P			2P	3
★R230	Emergency Boom Hoist	*F	*F	F	F	6

NOTES: (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. A minimum of five sorties must be planned prior to MAJCOM qualification evaluation. The squadron commander or designated representative may waive the fifth sortie based on proficiency attained in all required training events.

2. If ASR or PAR approaches are not readily available, as determined by the operations officer, then P103 and P113 may be accomplished in the OFT. The method of accomplishment will be annotated on the training report in the individual's training folder. Units without an on-station OFT may complete training without this event.

3. Required for receiver pilots only.

4. Not required for units without a simulator.

5. N/A ANG/AFRC.

6. *Required for requalification in units equipped with Pacer CRAG modified aircraft.

7. *N/A for Pacer CRAG equipped units.

8. Required only if equipment on aircraft.

9. Accomplished in ATD only. **Not required for USAFE. Conduct ground prebrief and accomplish this event during next continuation training simulator visit.**

10. *Required for requalification in units equipped with MPRS modified aircraft. Not required for navigators.

11. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

12. Or as directed in the MAJCOM supplement to AFI 11-301, Aircrew Life Support Program.

★**Table 1.4. Flight Instructor Requalification**.

Is aircrew member qualified as a non-instructor in the KC-135?	Instructor Designation (KC-135)	Required Training	Instructor Evaluation
Qualified	Removed for less than 18 months	Directed by the squadron commander	Recurring
Qualified	Removed for 18 months or more, but less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Qualified	Removed for 36 months or more	According to table 1.5.	Initial
Unqualified less than 2 years (Basic requal not required)	Removed for less than 36 months	Directed by the squadron commander and approved by the wing or group commander	Recurring
Unqualified 2 years or more (Basic requal required)	Removed for less than 36 months	According to table 1.5. (may simultaneously requal with basic requal)	Recurring

Unqualified 2 years or more (Basic requal required)	Removed 36 months or more but less than 5 years	According to table 1.5. (may simultaneously requal with basic requal)	Initial
Unqualified 2 years or more (Basic requal required)	Removed 5 years or more	According to table 1.5. (may not simultaneously requal with basic requal)	Initial

NOTES:

1. Category is established at the start of requalification and does not change until instructor requalification is complete.

2. Those individuals requiring basic requalification will complete the requirements in **Table 1.3.**

3. Basic and instructor requalification may be conducted simultaneously. Consult MAJCOM supplement to AFI 11-2KC-135, Volume 2 for guidance on simultaneous instructor requalification and basic requalification evaluations.

★4. Wing training should provide a recommendation concerning training events to be accomplished to regain instructor status.

★**Table 1.5. Instructor Requalification Training Requirements**.

Code	Training Event	Pilot	Nav	Boom	Notes
★A006	MPRS Certification Training	1		1	5,8
A010	Academics	1	1	1	
★A036	Pacer CRAG Differences Training	1	1	1	5
A044	Instructor Pre-Attendance Workbook	1	1	1	1
AA01	Instructor Flight Evaluation	1	1	1	
M001	Sortie (Includes MAJCOM Qualification)	3	3	3	
★N010	Tanker Rendezvous	*P	P		7
N060	Mission Navigation Leg		P		6
N140	Celestial Observation			P	6
P007	Approach to Initial Buffet and Recovery	P	F	F	2
P012	Takeoff-Gyro Mode	P			
P015	Instrument Departure	P			
P020	Takeoff	P			
P040	Simulated Engine Failure, Takeoff Continued	P			
P071	Holding	P			
P072	Penetration (Published)	P			
P073	En Route Descent	P			
P101	ILS Approach	P			
P102	ILS (Gyro Mode)	P			
P103	PAR Approach	P			3
P110	Non-Precision Approach	P			
P111	VOR/TACAN/FMS Procedures	P			
★P112	VOR/TACAN/Localizer/FMS Approach	P			
P130	Circling	P			
P140	Visual Traffic Pattern	P			
P160	Missed Approach	P			
P170	Approach and Go-Around, Simulated Engine Out	P			
P171	Approach and Go-Around, Simulated Engine Out, Rudder Power Off	P			
P180	Approach and Landing, Simulated Engine Out	P			
P190	Landing	P			
P194	Landing, 30-Degree Flaps	P			
P195	Landing, Simulated Engine Out, 4-Engine T/O	P			

Code	Event				
P200	Touch-and-Go Landing	P			
P215	Landing Attitude Demonstration	P			
P240	Landing Gear Alternate Extension		P	P	
P250	Main Flap Manual Operation		P	P	
P340	Briefing and Control of Passengers			P	
P345	Troubleshooting AR Equipment Malfunctions			P	
P355	In-flight Adjustment and Security of Load			F	
P360	Mission Planning and Briefing	P	P	P	
P366	Checklist Procedures and Use	P	P	P	
P369	Aircraft Equipment Operation	P	P	P	
P380	Spoiler and Lateral Control Demonstration	P			
P382	Trim Demonstration	P			
P383	Simulated Jammed Stabilizer Demonstration	P			
Q001	Open-Book Qualification Examination	1	1	1	
Q002	Closed-Book Qualification Examination	1	1	1	
★R010	Receiver AR	P			4
★R040	Receiver AR Breakaway and Emergency Separation	P	P		
R050	Receiver AR, Tanker Autopilot Off	P			4
R060	Tanker AR	P		P	
R070	Tanker AR Breakaway and Emergency Separation	P	P	P	
R080	Tanker AR Autopilot OFF	P			
R120	Contacts			P	
R135	Preparation for Contact Procedures			P	
R140	Tanker Manual Contact			P	
R180	Radio Silent Visual Signals	P		P	4

NOTES:

1. A044, CFIC Preattendance Workbook, is required if individual has been unqualified or removed from instructor status over 36 months. The squadron should request an instructor workbook from the ATS contractor if requalification is done in-unit. The workbook must be completed prior to the flight evaluation and returned to the contractor for grading.

2. Accomplished in ATD only. **Not required for USAFE. Conduct ground prebrief and accomplish this event during next continuation training simulator visit.**

3. May be accomplished in the simulator.

★4. Required for receiver pilots only.

5. If aircrew member was not previously qualified in Pacer CRAG and/or certified in MPRS and is requalifying in a unit equipped with Pacer CRAG and/or MPRS aircraft, qualification and/or certification training must be accomplished IAW with **Table 2.3** and/or **Table 2.5.**

6. N/A for Pacer CRAG equipped aircraft.

★7. *Required when requalifying in a Pacer CRAG aircraft

★8. Pilots and boom operators require a one-time only <u>certification</u> flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

★**1.7. Requalification Training (RQT).** AFI 11-202, Volume 1 specifies requalification training time limits and requirements. When completion of the requalification academic course is required but not practical, or quotas are not available, units will request a waiver through their parent MAJCOM. In-unit RQT flying requirements are listed in **Table 1.3.** Formal School RQT requirements are in the

Combat Crew Training School (CCTS) syllabus. Copies of the CCTS syllabus are available through the HQ AETC TRSS/DOU and the ATS contractor.

★2.1.1. In-unit difference training when the course is not available at the CCTS. (Note: Pacer CRAG and MPRS qualification/certification training will be accomplished in-unit. KC-135R Pacer CRAG initial cadre training will be accomplished at McConnell AFB KS. KC-135E Pacer CRAG initial cadre training will be accomplished at Scott AFB IL.)

★**2.5.1.** The following conditions apply to management of initial cadre aircrew qualification:
Form a nucleus of instructor and flight examiner personnel (initial cadre) to begin aircrew conversion. Converting units may request initial cadre waiver of a primary aircraft inventory (PAI) time requirement. Send waivers through channels and include the information specified in paragraph **1.2.5**. Additionally, include the most recent aircraft flown and total time in that aircraft in the remarks section of the waiver. Initial cadre will not be designated in a aircrew position higher than currently held, e.g. C-141 MP to KC-135 EP unless previously qualified in the conversion aircraft. After final approval, publish a unit letter to identify initial cadre of instructors and flight examiners by aircrew qualification.

★2.5.2. The unit training manager or flight commander, after examining the training and evaluation records of the individual, will determine which training events are applicable. For Pacer CRAG training, all events in **Table 2.1** apply. For MPRS training, all events in **Table 2.5**. apply.

★2.5.8. Pacer CRAG Training.

★2.5.8.2. Pacer CRAG Student Team Certification. Only pilots current and qualified in the specific MWS model during Pacer CRAG training may be team certified. Instructor pilots will occupy a seat with access to flight controls during critical phases of flight prior to student's Pacer CRAG qualification evaluation unless Pacer CRAG student team certification has been approved. After directly supervising student performance on at least one flying sortie, the instructor may recommend, and the squadron operations officer or designated representative may approve, Pacer CRAG student team certification. After this certification, the instructor pilot may supervise all future training and evaluation activities from either the jump seat or the pilot/copilot seats. Document student team certification on the AF Form 4023, Aircrew Training Progress Report in the student's training folder.

★2.5.8.3. Pacer CRAG Block 25 to Block 30 Certification Training. Accomplish Block 25 to Block 30 certification training in accordance with **Table 2.4.** Pilots and navigators require a minimum of one sortie prior to squadron commander certification. Boom operators will complete Pacer CRAG Block 25 to Block 30 Differences for Boom Operators instructor based training (IBT) prior to squadron commander certification. Document certification on the AF Form 4025, Aircrew Summary/Close-Out Report in the student's training folder. Annotate "Q-14 Pacer CRAG Block 30 Certification" in the individuals FEF on the AF Form 1381.

★2.5.8.3.1. Aircrew members qualified/certified to fly both Block 25 and Block 30 Pacer CRAG equipped aircraft will use M006 (Pacer CRAG Block 25 sortie) and M007 (Pacer CRAG Block 30 sortie) to track currency requirements specified in **Tables 4.6.** and **4.7.** (N/A for boom operators).

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★2.5.9. MPRS Certification Training.

★2.5.9.1. Accomplish A006, Multi-point Refueling System Certification Training prior to one-time only certification sortie. Knowledge of MPRS systems and equipment is imperative to be able to accomplish AR Pod refueling operations in MPRS equipped aircraft.

★2.5.9.2. MPRS one-time certification sortie. Supervision of a like-specialty MPRS instructor is required to observe equipment and AR Pod refueling operations prior to unsupervised use in-flight. The instructor pilot may supervise training activities from either the jump seat or the pilot/copilot seats. The instructor boom operator will observe training activities from the instructor position in the boom operator's compartment. Document certification on the AF Form 4025, Aircrew Summary/Close-Out Report in the student's training folder. Annotate "MPRS Certification" in the individuals FEF on the AF Form 1381.

★Table 2.1. Pacer CRAG Initial Cadre Qualification Training (ICQT) Requirements

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036	Pacer CRAG Differences Training	1	1	1	1	
★A036A	Pacer CRAG Orientation (Block 25) (CBT)	1	1	1	1	6
★A036A_30	Pacer CRAG Orientation (Block 30) (CBT)	1	1	1	1	6
★A036B	Flight Management System for Pilots and Navigators (Block 25)(CBT)	1	1	1		6
★A036B_30	Flight Management System for Pilots and Navs, Part 1 (Block 30) (CBT)	1	1	1		6
★A036BC	Multifunction Displays for Boom Operators (Block 25) (CBT)				1	6
★A036C_30	Flight Management System for Pilots and Navigators , Part 2 (Block 30) (CBT)	1	1	1		6
★A036D	Color Radar for Pilots and Navigators (Block 25) (CBT)	1	1	1		6
★A036D_30	Color Radar for Pilots and Navigators (Block 30) (CBT)	1	1	1		6
★A036E_30	Advanced Pacer CRAG Operations for Pilots and Navigators (Block 30) (CBT)	1	1	1		6
★A036F	Advanced Pacer CRAG Operations for Pilots and Navigators (Block 25) (CBT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	
A036L	Pacer CRAG Nav Techniques (IBT)	1	1	1		
A036M	Pacer CRAG Table Top Trainer	1	1	1		4
★A036N_30	EGPWS (Block 30) (CBT)	1	1	1	1	6
★A036NC	Multifunction Displays for Navigators (Block 25) (CBT)			1		6
★A036NE	Basic Pacer CRAG Operations for Navigators (Block 25) (CBT)			1		6
★A036PC	Multifunction Displays for Pilots (Block 25) (CBT)	1	1			6
★A036PE	Basic Pacer CRAG Operations for Pilots (Block 25) (CBT)	1	1			6
★A101_30	Multi-Function Display for Pilots (Block 30) (CBT)	1	1			6
★A102_30	Basic Pacer CRAG Operations for Pilots (Block 30) (CBT)	1	1			6
★A103	E-TCAS for Pilots (Block 25) (CBT)	1	1			6
★A103_30	E-TCAS (Block 30) (CBT)	1	1	1	1	6

★A201_30	Multi-Function Display for Navigators (Block 30) (CBT)			1		6
★A202_30	Basic Pacer CRAG Operations for Navigators (Block 30) (CBT)			1		6
★A301_30	Flight Instrument Familiarization for Boom Operators (Block 30) (CBT)				1	6
★A302_30	EADI for Boom Operators (Block 30) (CBT)				1	6
★A303_30	EHSI for Boom Operators (Block 30) (CBT)				1	6
★A304_30	Basic Instrument Procedures for Boom Operators (Block 30) (CBT)				1	6
★A305_30	3-Person Operations for Boom Operators (Block 30) (CBT)				1	6
AA01	Qualification Check	1	1	1		
★C101	Pacer CRAG FSAS for Pilots	1	1			6
★C101_30	Pacer CRAG Block 30 FSAS	1	1			6
★C200	AFMSS Portable Flight Planning Software	1	1	1		
★PTT25	KC-135 Pacer CRAG PTT (Block 25)	1	1	1	1	6
★PTT30	KC-135 Pacer CRAG PTT (Block 30)	1	1	1	1	6
★F010	Formation Departure and Join-Up	P	P			
★F020	Formation	P	P			
G025	Aircraft Field Trip	1	1	1	1	4
G258A-E	Pacer CRAG Differences Training OFT Profiles	5P	5P		1P	3,8
M001	Sortie	4P	4P	3P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker RZ and AR	P	P	P		2
N090	Control Time Exercise (Enroute Rz Substitute)	P	P	P		2
★N100	INS Airborne Alignment	P	P	P		2
★N105	INS Stored Heading Alignment	F	F			2
N130	Receiver Rendezvous	P	P	P		
N132	Receiver Point Parallel Rendezvous	P	P	P		
N136	Receiver Rendezvous Overrun Procedures	F	F	F		
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Penetration (Published)	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
★P111	VOR/TACAN/FMS Procedures	P	P			2
★P112	VOR/TACAN/Localizer/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
★P272	KY 58 Radio Operation	F	F		P	
★P360	Mission Planning and Briefing	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	

		Pilot	Copilot	Nav	Boom	Notes
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F			1,9
R040	Receiver AR Breakaway and Emergency Separation	P	P	P		1,9
R050	Receiver AR, Tanker Autopilot Off	P	F			1,9
R060	Tanker AR	P	P			
★R230	Emergency Boom Hoist	F	F		F	

NOTES:

1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.
4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to Initial Cadre class start date.
7. GPS keys included.
8. 3 Person CRM simulator for boom operators.
★9. Required for receiver pilots only.

★**Table 2.2. Difference Qualification Training (DQT) Requirements**.

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A035	R to E Difference Course	1	1	1	1	
AA01	Qualification Evaluation	A/R	A/R	A/R	A/R	3,4
★G025	Aircraft Field Trip	1	1	1	1	8
★G251	ATD Difference Training Profiles	3	3			2,6
LS08	Egress Training	P	P	P	P	
N010	Tanker Rendezvous			P		
N016	Tanker Rendezvous, Overrun Procedures	P	F	P		
N030	Tanker Point Parallel Rendezvous	P	F	P		
N120	ARDA			P		5
N130	Receiver Rendezvous			P		1
N132	Receiver Point Parallel Rendezvous	P	F	P		1
N136	Receiver Rendezvous Overrun Procedures	P	F	P		1
P007	Approach to Initial Buffet and Recovery	P	1			2
P018	Copilot Takeoff Climb Duties	P	P			
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			
P035	PMC Off Takeoff	1	F			2
P040	Simulated Engine Failure, Takeoff Continued	P	F			
★P170	Approach and Go-Around, Simulated Engine-Out	P	F			
★P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	F			
★P180	Approach and Landing, Simulated Engine-Out	P	F			
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1

P194	Landing 30-Degree Flaps	P	1			
P200	Touch-and-Go Landing	P				
P240	Landing Gear Alternate Extension	P	P	P	P	
P250	Main Flap Manual Operation	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1	1	
★Q014	Difference Certification	A/R	A/R	1	1	1,3,4
R010	Receiver AR	P	F			1,7
R011	Receiver AR, Indoctrination	P	F		1	1,7
R020	Receiver AR (Night)	P	F			1,7
R035	Receiver AR (Heavy Onload)	P	F			1,7
R040	Receiver AR Breakaway and Emergency Separation	P	P	P		1
R050	Receiver AR, Tanker Autopilot Off	P	F			1,7
R060	Tanker AR	P	P			
R061	Tanker AR Indoctrination		P			
R070	Tanker Breakaway and Emergency Separation	P	P	P	P	
R080	Tanker AR, Autopilot Off	P	F			
R180	Radio Silent Visual Signals	P	F		1	7

NOTES:

1. As applicable.

★2. Accomplished in ATD only. **Not required for USAFE. Conduct ground prebrief and accomplish this event during next continuation training simulator visit.**

3. Pilots completing DQT in –135 aircraft with different power plants (fan versus non-fan) will complete AA01 according to AFI 11-2KC-135, Volume 2, C/*KC-135 Aircrew Evaluation Criteria*, MAJCOM supplement.

4. A/R = as required

5. Required only if or when a difference exists in the aircraft radar (e.g., APN 59 to color weather radar).

6. See MAJCOM supplement.

★7. Required for receiver pilots only.

★8. Optional

★**Table 2.3. Pacer CRAG Difference Qualification Training (DQT) Requirements**

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036	Pacer CRAG Differences Training	1	1	1	1	
★A036A	Pacer CRAG Orientation (Block 25) (CBT)	1	1	1	1	6
★A036A_30	Pacer CRAG Orientation (Block 30) (CBT)	1	1	1	1	6
★A036B	Flight Management System for Pilots and Navigators (Block 25)(CBT)	1	1	1		6
★A036B_30	Flight Management System for Pilots and Navs, Part 1 (Block 30) (CBT)	1	1	1		6
★A036BC	Multifunction Displays for Boom Operators (Block 25) (CBT)				1	6
★A036C_30	Flight Management System for Pilots and Navigators , Part 2 (Block 30) (CBT)	1	1	1		6
★A036D	Color Radar for Pilots and Navigators (Block 25) (CBT)	1	1	1		6

Code	Description					
★A036D_30	Color Radar for Pilots and Navigators (Block 30) (CBT)	1	1	1		6
★A036E_30	Advanced Pacer CRAG Operations for Pilots and Navigators (Block 30) (CBT)	1	1	1		6
★A036F	Advanced Pacer CRAG Operations for Pilots and Navigators (Block 25) (CBT)	1	1	1		6
A036K	Altitude Alerting System (IBT)	1	1	1	1	
A036L	Pacer CRAG Nav Techniques (IBT)	1	1	1		
A036M	Pacer CRAG Table Top Trainer	1	1	1		4,6
★A036N_30	EGPWS (Block 30) (CBT)	1	1	1	1	6
★A036NC	Multifunction Displays for Navigators (Block 25) (CBT)			1		6
★A036NE	Basic Pacer CRAG Operations for Navigators (Block 25) (CBT)			1		6
★A036PC	Multifunction Displays for Pilots (Block 25) (CBT)	1	1			6
★A036PE	Basic Pacer CRAG Operations for Pilots (Block 25) (CBT)	1	1			6
★A101_30	Multi-Function Display for Pilots (Block 30) (CBT)	1	1			6
★A102_30	Basic Pacer CRAG Operations for Pilots (Block 30) (CBT)	1	1			6
★A103	E-TCAS for Pilots (Block 25) (CBT)	1	1			6
★A103_30	E-TCAS (Block 30) (CBT)	1	1	1	1	6
★A201_30	Multi-Function Display for Navigators (Block 30) (CBT)			1		6
★A202_30	Basic Pacer CRAG Operations for Navigators (Block 30) (CBT)			1		6
★A301_30	Flight Instrument Familiarization for Boom Operators (Block 30) (CBT)				1	6
★A302_30	EADI for Boom Operators (Block 30) (CBT)				1	6
★A303_30	EHSI for Boom Operators (Block 30) (CBT)				1	6
★A304_30	Basic Instrument Procedures for Boom Operators (Block 30) (CBT)				1	6
★A305_30	3-Person Operations for Boom Operators (Block 30) (CBT)				1	6
AA01	Qualification Check	1	1	1		
★C101	Pacer CRAG FSAS for Pilots	1	1			6
★C101_30	Pacer CRAG Block 30 FSAS	1	1			6
★C200	AFMSS Portable Flight Planning Software	1	1	1		
★PTT25	KC-135 Pacer CRAG PTT (Block 25)	1	1	1	1	6
★PTT30	KC-135 Pacer CRAG PTT (Block 30)	1	1	1	1	6
★F010	Formation Departure and Join-Up	P	P			
★F020	Formation	P	P			
G025	Aircraft Field Trip	1	1	1	1	4
★G258A-E	Pacer CRAG Differences Training OFT Profiles	5P	5P		1P	3,8
★M001	Sortie	4P	4P	3P	2P	3
N010	Tanker Rendezvous	P	P	P		
N030	Tanker Point Parallel Rendezvous	P	P	P		
N040	Tanker Anchor RZ and AR	P	P	P		2
N090	Control Time Exercise (Enroute Rz Substitute)	P	P	P		2
N100	INS Airborne Alignment	P	P	P		2
★N105	INS Stored Heading Alignment	F	F			2
N130	Receiver Rendezvous	P	P	P		
N132	Receiver Point Parallel Rendezvous	P	P	P		
N136	Receiver Rendezvous Overrun Procedures	F	F	F		
N160A	FMS Navigation	P	P	P		
P012	Takeoff, Gyro Mode	P	P			2

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
P018	Copilot Takeoff Climb Duties	P	P			2
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			2
P070	Instrument Approach	P	P			2,5
P071	Holding	P	P			2
P072	Published Penetration	P	P			2
P073	En Route Descent	P	P			2
P100	Precision Approach	P	P			2,5
P101	ILS Approach	P	P			2
P102	ILS Approach Gyro	P	P			2
P110	Non-Precision Approach	P	P			2,5
P111	VOR/TACAN/FMS Procedures	P	P			2
P112	VOR/TACAN/Localizer/FMS Approach	P	P			2
P160	Missed Approach	P	P			2,5
P190	Landing	P	P			
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P240	Landing Gear Alternate Extension	F	F		F	
P260	HAVE QUICK Radio Procedures	P	P			
★P272	KY 58 Radio Operation	F	F		P	
★P360	Mission Planning and Briefing	P	P	P	P	
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
P368	Post Flight	P	P	P	P	
P369	Aircraft Equipment Operations	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1		
Q014	Difference Certification				1	
R010	Receiver AR	P	F			1,9
R040	Receiver AR Breakaway and Emergency Separation	P	P	P		1
R050	Receiver AR, Tanker Autopilot Off	P	F			1,9
R060	Tanker AR	P	P			
★R230	Emergency Boom Hoist	F	F		F	

NOTES:
1. As applicable.
2. Event creditable in the ATD.
3. May proficiency advance on instructor recommendation and squadron commander approval.
4. Optional but recommended.
5. Only one event per ATD may be logged.
6. Complete up to 60 days prior to beginning simulator/flying training.
7. GPS keys included.
8. 3 Person CRM simulator for booms.
★9. Required for receiver pilots only.

★**Table 2.4. Pacer CRAG Block 25 to Block 30 Certification Training Requirements.**

Code	Training Event/Lesson	Pilot	Copilot	Nav	Boom	Notes
A036M	Pacer CRAG Table Top Trainer	1	1	1		1
A036N_30	EGPWS (Block 30) (CBT)	1	1	1		2
A400_30	Pacer CRAG Block 25 to Block 30 Differences (CBT)	1	1	1		2
A401_30	Pacer CRAG Block 25 to Block 30 Differences for Boom Operators (IBT)				1	
G258A-D	Pacer CRAG Differences Training OFT Profile	1	1			3
M001	Sortie	1P	1P	1P		
N010	Tanker Rendezvous	P	P	P		

Code	Training Event	Pilot	CP	Boom		Note
N030	Tanker Point Parallel Rendezvous	P	P	P		4
N040	Tanker Anchor Rendezvous	P	P	P		4
N090	Control Time Exercise (Enroute RZ Substitute)	P	P	P		4
N130	Receiver Rendezvous	P	P	P		
N160A	FMS Navigation	P	P	P		
P020	Takeoff	P	P			
P070	Instrument Approach	P	P			4,5
P100	Precision Approach	P	P			4,5
P101	ILS Approach	P	P			4
P110	Non-Precision Approach	P	P			4,5
P112	VOR/TACAN/Localizer/FMS Approach	P	P			4
P190	Landing	P	P			
P360	Mission Planning and Briefing	P	P	P		
P360A	AFMSS Mission Planning	P	P	P		
P361	Preflight	P	P	P		
P366	Checklist Procedures	P	P	P		
P367	Crew Coordination	P	P	P		
P368	Post Flight	P	P	P		
P369	Aircraft Equipment Operation	P	P	P		
Q14	Difference Certification	1	1	1	1	

NOTES:

1. Optional but recommended.
2. Complete up to 60 days prior to simulator and flying training.
3. If a Block 30 simulator is unavailable, substitute this event with a flying sortie (M001).
4. Event creditable in the ATD.
5. Only one event per ATD may be logged.

★**Table 2.5. MPRS Certification Training Requirements.**

Code	Training Event	Pilot	CP	Boom	Note
A006	MPRS Certification Course	1	1	1	
★A006A	MPRS System Description (IBT)	1	1	1	
★A006B	MPRS Specifications and Limitations (IBT)	1	1	1	
★A006C	MPRS Normal Procedures (IBT)	1	1	1	
★A006D	MPRS Performance (IBT)	1	1	1	
★A006E	MPRS Abnormal Procedures (IBT)	1	1	1	
★A006F	MPRS Cautions and Warnings (IBT)	1	1	1	
G025	Aircraft Field Trip	1	1	1	
M001	Sortie	1P	1P	1P	1
P360	Mission Planning and Briefing	1P	1P	1P	
P361	Preflight	1P	1P	1P	
P366	Checklist Procedures and Use	1P	1P	1P	
P367	Crew Coordination	1P	1P	1P	
P369	Aircraft Equipment Operation	1P	1P	1P	
Q002	Closed-Book Qualification Examination	P	P	P	
Q014	Difference Certification	1	1	1	1
R073	AR Pod Breakaway and Emergency Separation	1P	1P	1P	
R135	Preparation for Contact Procedures	1P	1P	1P	
R155	Probe and Drogue Contact			2P	
R195	Tanker Wing Pod AR	1P	1P	1P	

NOTE:

1. Pilots and boom operators require a one-time only certification flight under supervision of a like-specialty MPRS instructor. MPRS certification is required prior to unsupervised equipment and AR Pod refueling operations in-flight. Not required for navigators.

★2. Required for receiver pilots only.

★2.6.1. Aircrew members maintaining dual qualification in different model aircraft will, as a minimum, maintain FTL A currency requirements in each aircraft (N/A for senior officers; see paragraph **2.7.**). **Table 2.2** lists training to qualify a qualified –135 aircrew member in another mission and series (M/S) –135 aircraft.

★**2.7. Senior Officer Qualification and Performance Requirements**. AFI 11-202, Volume 1 identifies senior officer qualification and performance requirements. **Table 2.6.** contains additional senior officer qualification and requalification requirements.

★**Table 2.6. Senior Officer Qualification and Requalification Requirements**.

Code	Training Event	Pilot	Nav	Notes
A004	Senior Staff Qualification Course	1	1	
AA01	Qualification Evaluation	P	P	
G230	Crew Resource Management Refresher	1	1	
LS08	Egress Training	1	1	
M001	Sortie (Includes MAJCOM Qualification)	3	3	2
N016	Tanker Rendezvous Overrun Procedures	F	1	
N020	Tanker En Route Rendezvous	F	1P	
N030	Tanker Point Parallel Rendezvous	F	1P	
PP01	Flight Physical	1	1	
PP11	Physiological Training	1	1	
P012	Takeoff-Gyro Mode	1		
P015	Instrument Departure	2P		
P020	Takeoff	2P		
P026	Takeoff and Climb Procedures	2P		
P040	Simulated Engine Failure, Takeoff Continued	2P		
P071	Holding	1		
P072	Penetration (Published)	1		
P073	En Route Descent	2P		
P100	Precision Approach	3P		
P102	ILS (Gyro Mode)	1P		
P110	Non-Precision Approach	3P		
P112	VOR/TACAN/Localizer/FMS Approach	3P		
P160	Missed Approach (Manual)	3P		
P170	Approach-and-Go, Simulated Engine-Out	2P		
P171	Approach and Go, Simulated Engine-Out, Rudder Power Off	1		
P180	Approach-and-Land, Simulated Engine-Out	2P		
P190	Landing	2P		
P194	Landing, 30-Degree Flaps	1		
P200	Touch-and-Go Landing	3P		
P360	Mission Planning and Briefing	1P	2P	
P365	Autopilot Off Cruise	1		
P366	Checklist Procedures and Use	2P	2P	
P367	Crew Coordination	2P	2P	
P369	Aircraft Equipment Operation	2P	2P	
Q001	Open-Book Qualification Examination	1	1	

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
Q002	Closed-Book Qualification Examination	1	1		
R060	Tanker AR	P	2P	1	
R070	Tanker AR Breakaway and Emergency Separation	P	1P	1	

NOTES: (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. Required when qualification includes tanker AR.
2. Includes MAJCOM Qualification Evaluation.

★**Table 3.1. Mission Qualification Ground Training Requirements**. *If conventional taskings prevent completion of mission qualification training prior to deployment, contact parent MAJCOM for waiver approval. Waivers will be approved on a case-by-case basis. Previously certified and qualified mission-ready aircrew members transferring between units only need any unit specific training in these events and any applicable events in which they have lost currency.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
A037	SIOP Performance Training	P	P			1,2
G002	Aircraft Marshaling Training and Examination	1	1	1	1	1,5,8, 12
G003	Flightline Drivers Training and Examination	1	1	1	1	1,5,7
G010	Chemical Biological Warfare Training	1	1	1	1	1,8,11
G031	Initial Command and Control Procedures	P	P	P	P	1,2
G033	Unit Alert Procedures	P	P	P	P	1,2,5
G034	MITO Training	P	P	P	1	2,8
G035	PLZT Goggle Training	1	1	1	1	1,2,4
G036	Flash Blindness and Thermal Protection	P	P	P	P	1,2
G040	SIOP Study	P	P	P	P	2
G041	Unit Mission Briefing	1	1	1	1	5,11
G060	Tactics	1	1	1	1	5,11
G070	Aircrew Intelligence Training	1	1	1	1	11
G080	Communications Procedures	1	1	1	1	1,12
G090	Anti-hijacking	1	1	1	1	1
G100	Laws of Armed Conflict	1	1	1	1	1
G110	Force Protection Requirements	1	1	1	1	1
G120	ISOPREP Review	1	1	1	1	11
G130	IRC	1	1	1		12
G150	TERPS				1	12
G182	Hazardous Cargo Training	1			1	3,10
G183	Floor Loading				1	10
G184	Palletized Cargo Loading				1	3,10
G190	Aircraft Servicing	1	1	1	1	1,2
G210	Alert Start Procedures	P	P	F	F	2
G230	CRM	1	1	1	1	12,14
G240	CRM/MOST Simulator	1	1	1	1	8,10,11,14
G257	KC-135E Simulator	1	1			8,9
★G270	Tactics Simulator	1	1	1	1	8,11,16
★G280	Small Arms Training	1	1	1	1	1,3,11
★LS01	Local Area Survival	1	1	1	1	1,11
★LS04	Aircrew Chemical Defense Training (ACDT)	1	1	1	1	1,8,11

LS05	Egress Training with ACDE	1	1	1	1	8,11,13
★LS06	Life Support Equipment	1	1	1	1	1,15
LS08	Egress Training	1	1	1	1	1,8,12
LS10	Hanging Harness Training	1	1	1	1	1,8
LS12	Hanging Harness Training with ACDE	1	1	1	1	8,11,13
PP01	Flight Physical	1	1	1	1	12
PP11	Physiological Training	1	1	1	1	12
Q010	SIOP Certification	1	1	1	1	2,5,6
Q016	Conventional Certification	1	1	1	1	5,6,11
S-V80-A	Initial Combat Survival Training	1	1	1	1	
S –V90-A	Initial Water Survival Training	1	1	1	1	

NOTES:

1. AC upgrades are not required to accomplish if previously accomplished as a copilot.

2. Required for units with SIOP DOCs. Units with a primary or secondary SIOP DOC must have 100 percent of their line aircrews SIOP certified. With the exception of G035, A037, G031, G033, G034, G036, G040, G190, and G210 must be completed prior to Q010, SIOP Certification.

3. Individuals may be declared MR without completing events G182, G184, and G280. G182/G184 must be completed not later than 180 days following certification or prior to cargo or passenger mission, whichever comes first. G280 must be completed not later than 180 days following certification or prior to flying a mission requiring arming, whichever comes first.

4. G035 must be completed within 60 days of helmet modification; aircrew member may be declared MR prior to completing G035.

5. Previously certified and qualified mission-ready aircrew members in a cross-flow program (between flying units) only need any unit specific training in these events, and any applicable events in which they have lost currency.

6. Q010 and Q016 may be accomplished prior to aircraft qualification/requalification, however, an individual cannot be signed off as certified or mission ready until all training is complete. Individuals who are at their unit and awaiting the start of the formal school may begin MQ ground training and establish reference dates.

7. Required only for those aircrew members who need to drive on the flightline as determined by the squadron commander.

8. Or as directed in the associated MAJCOM supplement.

9. E-model qualified pilots and copilots only.

10. Credit may be awarded if the event was accomplished at the formal school.

11. Not required for formal schoolhouse instructors.

12. Formal schoolhouse aircrew members will complete these items prior to certification in their unit mission.

13. One-time-only event in each MDS.

14. **USAFE: Contractor CRM training fulfills this requirement**.

★15. LS06 is not required if life support equipment is covered as part of LS02, LS03, and LS08.

★16. Not required for units without simulators.

★Table 3.2. **Mission Qualification Flight Training Requirements**. *Previously certified and qualified mission-ready aircrew members transferring between units only need any unit specific training in these events, and any applicable events in which they have lost currency.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
★P053	Spiral Up Departure	P	P			8,9
★P061	VFR Overhead	P	P			8,9
★P064	Random Steep Arrival	P	P			8,9
★P065	Curvilinear Approach	P	P			8,9
★P066	Low Altitude High Speed Departure	P				8,9,10
P260	HAVE QUICK Radio Procedures	P	P			8
P270	SECURE RADIO Operation	P	P	P		8
P280	ACDTQT	1	1	1	1	8
P290	Alert Start	P	P			6,8
★Q011	Formation Lead Certification Program	1				
Q021	BRAVO Probe Equipped Receivers				P	2,3,4
Q022	CHARLIE Receptacle Equipped Fighters, Day				P	2,4,5
Q023	CHARLIE Receptacle Equipped Fighters, Night				P	2,4,5
★Q028	GOLF Day Heavy Receiver (KC-10, C-5, C-17, or B-2)	P			P	1,4 ,5
★Q029	GOLF Night Heavy Receiver (KC-10, C-5, C-17, or B-2)				P	4 ,5
★Q033	Multi Point Refueling System	P	P		P	3,4,5,11
R160	Radio Silent Breakaway				P	
R165	Radio Silent AR				P	

NOTES:

1. Pilots may be declared mission-ready when qualified in category receivers required by unit mission.

2. When day and night AR qualification is required, day qualification must be accomplished prior to commencing night training and qualification.

★3. Must be qualified in Q022 and Q023 before starting Q021 or Q033 training (boom operator only).

4. With program manager recommendation and squadron commander approval, boom operators may be declared qualified in a specific air refueling category.

5. Boom Operators may be declared mission-ready and can deploy forward when qualified in category receivers required by unit mission or when items Q22, Q23, and Q28 have been accomplished. Completion of the remaining events may be accomplished in theater with an instructor. Unit SIOP mission required events will be accomplished within 60 days of return to home station; all other events will be accomplished at the earliest opportunity.

6. Required for units with SIOP DOCs.

7. Required for Pacer CRAG mission ready status.

8. Not required for formal schoolhouse.

★9. N/A for units permanently based overseas.

★10. Accomplish in the simulator prior to flight training if feasible.

★11. Applicable only to units with MPRS aircraft. Requires MPRS certification in accordance with table 2.5. for pilot and boom operator qualification.

★**3.4.1. Theater Indoctrination (TI). All USAFE aircrews will complete TI ground training prior to flight training. TI flight training may be combined with initial MQT sorties, but**

should be the first sortie flown in theater. If TI training is done in conjunction with MQT, all TI training must be complete prior to MR or theater certification. Supervision will be an IP or IN.

⋆**3.4.1.2.2. Instrument approach (precision and non-precision).**

⋆**4.1.2. Basic Mission Capable (BMC).** A Non-Mission Ready aircrew member assigned to MAJCOM headquarters, NAF, Tanker Airlift Control Center (TACC), Air Mobility Warfare Center (AMWC), Tanker Airlift Control Element (TALCE), Air Mobility Operations Group (AMOG), formal schoolhouse, or direct reporting unit (DRU) who has satisfactorily completed mission qualification training, does not maintain MR status, but maintains familiarization in the command or unit operational mission. The aircrew member may maintain qualification in some aspects of the unit mission, and is able to attain full qualification in the unit mission within 45 days. See note after paragraph **4.2.2.1.** for training level requirement. Formal schoolhouse BMC aircrews are qualified to conduct all aspects of the formal schoolhouse training mission. Formal schoolhouse instructors must be qualified in the training/unit mission prior to performing instructor duties.

⋆4.1.4.1. If the aircrew member is NMR for failure to maintain currency per paragraph **4.6.1.1.**, place the aircrew member in supervised status for that event (individual flies with an instructor of like specialty) until required training is accomplished. Loss of currency prohibits an individual from flying outside of the CONUS or accomplishing unsupervised in-flight duties in the noncurrent event(s). For example, if the individual is noncurrent for an event such as tanker air refueling or tanker rendezvous, the individual may fly unsupervised on CONUS sorties which are not scheduled for and do not accomplish tanker air refueling. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG/CC is the approval authority). **Approved for USAFE with OG/CC approval.** *EXCEPTION*: An individual noncurrent in takeoffs (P010 or P020), full stop landings (P190), approaches (P070), or night landings (P192) will not fly unsupervised on any sortie. The aircrew member cannot deploy until currency is regained.

⋆4.1.4.2.2. Place the aircrew member in supervised status (individual flies with an instructor of like specialty) until required training is accomplished. The operations group commander may allow individuals to fly unsupervised on CONUS sorties if loss of MR status was for failure to complete ground/flying continuation training. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG/CC is approval authority). **Approved for USAFE with OG/CC approval.**

⋆4.1.4.3. Copilots, navigators, and boom operators who are undergoing mission qualification training and are current and qualified, may fly without an instructor of like specialty on CONUS only sorties. Aircraft commanders will not fly unsupervised until they have been approved by the Review and Certification (R&C) Board per AFI 11-2KC-135, Volume 2, *Aircrew Evaluation Criteria*. Upon completion of the R&C board, aircraft commanders, provided they are current and qualified, may fly unsupervised. For example, if a boom operator is current and qualified on refueling C-141s, the OG/CC can allow him/her to fly on a CONUS only mission that is scheduled to refuel a C-141. Exercise caution as the scheduled receiver could cancel and

a new receiver might be scheduled for which the boom operator is not qualified to refuel. MAJCOMs outside of the CONUS may allow individuals to fly local, routine, and non-contingency overseas sorties in their respective theater (OG/CC is approval authority). **Approved for USAFE with OG/CC approval**.

★4.2.2.1. Flying Training Levels (FTL):

★*NOTE*: NMR aircrew members assigned to MAJCOM headquarters, NAF, TACC, AMWC, TALCE, AMOG, formal schoolhouse, or a direct reporting unit are categorized as Basic Mission Capable (BMC) and assigned to FTL "A" and GTL "4". In addition to GTL "4" requirements, these individuals must also accomplish annual crew resource management (CRM) training (G230 and G240) requirements. These individuals may fly unsupervised on local training missions provided they are current and qualified. They require instructor supervision on all other missions (*EXCEPTION:* NAF Evaluators may fly unsupervised outside the CONUS providing they maintain GTL 1 or 2 and FTL A. G030, G034, G040, G041, G210, G270, Q010, and Q016 are N/A in this case. MAJCOM evaluators assigned overseas may fly unsupervised on routine, non-contingency sorties in the CONUS or their respective theaters). Since these aircrew members do not maintain MR status, they cannot log MP, MN, MF, or MB time. For example a pilot may log EP, IP, or FP time. If G230 or G240 requirements are not met, the individual must fly with an instructor of like specialty unless waived (see paragraph **4.1.4**.).

★4.2.2.2.5. DELETED

★4.2.2.3. Change of FTL or GTL. Once the semiannual period begins, personnel should not be moved to a level requiring fewer events. Personnel may be moved to FTL "E" or GTL "4" when appropriate. Basic aircraft qualified aircrew members may be placed in a different FTL any time after attaining MR status.

★**4.3.4.** All AC Upgrade and CFIC training may be credited for continuation training for the crew position in which they are currently qualified in. This includes category I AC Upgrade training done in the left seat and pre- or post-CFIC pilot training done in the right seat. (See **Tables 4.1**, **4.3**, and **4.6** for specific creditable events.)

★**4.4.1. Ground Continuation Training Events.** Aircrew members will comply with requirements of **Table 4.1.** and **Table 4.2.**. All items are MR events except flight records review.

★**Table 4.1. Ground Continuation Training Requirements**. (Definitions also apply to flying table).

Course descriptions can be found in Attachment 2.
Use the following definitions for the regular frequency of ground training:
B—*Biennial*. Accomplished every 2 calendar years. Initial accomplishment establishes a currency reference year.
A—*Annual*. Accomplished once each calendar year. Initial accomplishment establishes a currency reference year.
SA—*Semiannual.* Accomplished each 6-month training period.
T—*Triennial*. Accomplished every 3 calendar years. Initial accomplishment establishes a currency reference year.
★**QQ**—*Quinquennial.* Accomplish every 5 years. Expiration date is the last day of the month in which training is required.
Q—*Quarterly*. Accomplished twice each training period, once in the first 3 months and Once in the second 3 months.
M—*Monthly*. Accomplished each calendar month.
A/R—*As Required*.
C—*Cycle*. In conjunction with qualification evaluation (i.e., every 17 months).

Pilot/Copilot		Pilot Training Level			Copilot Training Level			
Code	Training Event	1	2	3	1	2	3	Notes
★G010	Chem-Biological Warfare Defense Training	T	B	B	B	B	B	5,11,16
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,8,11
G034	MITO Procedures	A	A	A	A	A	A	12
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,8,11
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	T	A	A	A	A	A	11
G070	Aircrew Intelligence Training	A	A	A	A	A	A	11
G080	Communications Procedures	A	A	A	A	A	A	
G130	Instrument Refresher Course	C	C	C	C	C	C	
★G182	Hazardous Cargo Training	T	B	A				11
G210	Alert Start Procedures	A	A	A	A	A	A	1
G222	Hydraulics	A	A	A	A	A	A	6
G223	Flight Controls	A	A	A	A	A	A	6
G224	Fuel Systems	A	A	A	A	A	A	6
G225	Electric Systems	A	A	A	A	A	A	6
G226	Environmental Systems	A	A	A	A	A	A	6
G227	Engines, Propulsion, APU	A	A	A	A	A	A	6,7
G230	CRM/MOST Refresher	A	A	A	A	A	A	5,7,15
★G240	CRM/MOST Simulator	A	A	A	A	A	A	5,6,15
G252	Electrics Simulator	A	A	A	A	A	A	5,6,7,13
G253	Hydraulics Simulator	A	A	A	A	A	A	5,6,7,13
G254	Engines Simulator	A	A	A	A	A	A	5,6,7,13
G255	Fuels Simulator	A	A	A	A	A	A	5,6,7,13
G256	Pneumatics/Aerodynamics Simulator	A	A	A	A	A	A	5,6,7,13
★G260	Instrument Simulator Sortie	A	A	A	A	A	A	5
G270	Tactics Simulator	A	A	A	A	A	A	5,11,13,14

Code	Training Event							Notes
G280	Small Arms Training (SAT)	B	B	B	B	B	B	10,11
G802	SOAR Ground Training	A	A	A	A	A	A	4
LS02	Combat Survival Training	T	T	T	T	T	T	5,11
LS03	Water Survival Training	T	T	T	T	T	T	5
LS04	Aircrew Chemical Defense Training	B	B	B	B	B	B	5,11
LS08	Egress Training	T	T	B	T	T	B	5,9
★LS10	Hanging Harness Training	T	T	T	T	T	T	
PP01	Flight Physical	A	A	A	A	A	A	9
★PP11	Physiological Training	QQ	QQ	QQ	QQ	QQ	QQ	9
Q010	SIOP Certification	A	A	A	A	A	A	1,2,11
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	
RR01	Flight Records Review	A	A	A	A	A	A	3

NOTES:

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Included as ground training for documentation or AFORMS tracking only.
4. Required for SOAR certified aircrews only.
5. Or as directed in the associated MAJCOM supplement.
6. Credit during initial, upgrade, and requalification training to establish reference dates.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
★9. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. See AFI 11-403, *Aerospace Physiological Training Program*, for complete guidance.
10. Expires 2 years from the date of accomplishment.
11. Not required for formal schoolhouse instructors.
12. Required for units whose SIOP DOCs require this capability.
13. AFRC pilots and copilots are required two of the five refresher simulators per year. Log G990/991.
14. Not required for units without simulators.
★15. **USAFE: Contractor CRM training fulfills this requirement. Currency is once every 24 calendar months.**
★16. Annual training requirement for all ACC KC-135 aircrew members.

★**Table 4.2. Ground Continuation Training Requirements**.

	Navigator/Boom Operator	Nav Training Level			Boom Training Level			
Code	Training Event	1	2	3	1	2	3	Notes
★G010	Chem–Biological Warfare Defense Training	T	B	B	T	B	B	9,12,20
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,8
G034	MITO Procedures	A	A	A	*A	*A	*A	14,16
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,8
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	T	A	A	A	A	A	12
G070	Aircrew Intelligence Training	A	A	A	A	A	A	12
G080	Communications Procedures	A	A	A	A	A	A	
G130	Instrument Refresher Course	C	C	C				
G150	Boom TERPS				T,*A	B,*A	A	16

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★G160	Overwater Navigation Procedures	T	B	A				12,19
★G161	Polar Navigation Procedures	A	A	A				12,19
★G170	Celestial Training Device	A	A	A				19
★G171	Polar Grid CTD	T	T	T				3,19
★G172	Twilight CTD	T	T	T				3,19
★G173	Southern Latitude CTD	T	T	T				3,19
★G174	Unit Option CTD	AR	AR	AR				3,19
G182	Hazardous Cargo Training				A	A	A	12
G183	Floor Loading				A	A	A	12
G184	Palletized Cargo Loading				A	A	A	12
★G215	EADI Multifunction Display for Boom Operators				*A	*A	*A	7,16
★G225	Electric Systems	A	A	A	A	A	A	6
★G226	Environmental Systems	A	A	A	A	A	A	6
G227	Engines, Propulsion, APU	A	A	A	A	A	A	4,7,12
G228	Electrics and Fuel Systems for Boom Operators				A	A	A	7,12
G229	AR Systems for Boom Operators				A	A	A	7,12
★G230	CRM Refresher	A	A	A	A	A	A	7,9,17
★G240	CRM/MOST Simulator	A	A	A	A	A	A	9,13,15,17
G270	Tactics Simulator	A	A	A	A	A	A	9,12,18
G280	Small Arms Training (SAT)	B	B	B	B	B	B	11,12
G802	SOAR Ground Training	A	A	A	A	A	A	6
LS02	Combat Survival Training	T	T	T	T	T	T	9,12
LS03	Water Survival Training	T	T	T	T	T	T	9
★LS04	Aircrew Chemical Defense Training	B	B	B	B	B	B	9,12
LS08	Egress Training	T	T	B	T	T	B	9,10
★LS10	Hanging Harness Training	T	T	T	T	T	T	
PP01	Flight Physical	A	A	A	A	A	A	10
★PP11	Physiological Training	QQ	QQ	QQ	QQ	QQ	QQ	10
Q010	SIOP Certification	A	A	A	A	A	A	1,2,12
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	
★RR01	Flight Records Review	A	A	A	A	A	A	5

NOTES:

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Dual-log with G170.
4. To credit G227, navigators and boom operators must complete the APU portion.
5. Included as ground training for documentation or AFORMS tracking only.
6. Required for SOAR certified aircrews only.
7. Creditable during CCTS and CFIC training.
8. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
9. Or as directed in the associated MAJCOM supplement.
★10. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. See AFI 11-403, *Aerospace Physiological Training Program*, for complete guidance.
11. Expires 2 years from the date of accomplishment.
12. Not required for formal schoolhouse instructors.

13. Credit during initial, upgrade, and requalification training to establish reference dates.

14. Required for units whose SIOP DOCs require this capability.

15. OG/CCs may waive G240 for Navigators and Boom Operators when either the unit is not co-located with a simulator or when the simulator is not equipped with the applicable aircrew position.

16. *Pacer CRAG qualified boom operators.

★17. **USAFE: Contractor CRM training fulfills this requirement. Currency is once every 24 calendar months.**

18. Not required for units without simulators.

★19. N/A for Pacer CRAG only navigators

★20. Annual training requirement for all ACC KC-135 aircrew members.

★**Table 4.3. Ancillary Ground Training Requirements. (Does not affect MR status.)**

Pilot/Copilot/Navigator/Boom Operator		Training Level		
Code	**Training Event**	**1**	**2**	**3**
RR01	Flight Records Review	A	A	A
G090	Anti-hijack	B	B	B
G100	Laws of Armed Conflict	A	A	A
★G110	Protection From Terrorism	A	A	A
G120	ISOPREP Review	180	180	180
G190	Aircraft Servicing	T	T	T

★4.4.1.3.   Senior Officer, BMC, and Staff Officers Ground Continuation Training Requirements. Senior officers and all other aircrew members maintaining BMC and BAQ (TL E) in the KC-135 are required to complete, as a minimum, the courses listed in **Table 4.4.** Senior officers maintaining MR status will comply with **Table 4.1.** or **Table 4.2.**

★**Table 4.4. Ground Training Level 4 Continuation Training Requirements (NMR Senior Officer, BMC, and Staff Officer).**

Code	Event	Frequency
G130	Instrument Refresher Course (IRC)	C
G230	CRM Refresher	A
G240	CRM/MOST Simulator	A
LS08	Egress Training	B
PP01	Flight Physical	A
★PP11	Physiological Training	QQ
RR01	Flight Records Review	A

★*NOTE*: LS08, PP01, PP11 are mandatory grounding items for non-accomplishment. Individual will not fly until required training is complete. For PP11, aircrew who have more than 20 years of flying service and have completed two or more refresher physiology courses with chamber flights receive refresher academics every 5 years. However, training in an altitude chamber is the aircrew member's option. G240 is as directed in MAJCOM supplement. **USAFE: Contractor CRM training fulfills requirement for G230/G240. Currency is once every 24 calendar months.**

★Table 4.5. Flight Surgeon Ground Continuation Training Events.

Code	Event	Frequency	Notes
G010	Chemical-Biological Defense Training	B	2
G090	Anti-hijack	B	2
G100	Laws of Armed Conflict	A	2
G110	Force Protection Requirements	A	2
G120	ISOPREP Review	180	2
G230	CRM (One-time requirement in primary assigned aircraft)	Initial	3
LS02	High-Threat Combat Survival	T	2
LS03	Water Survival	T	2
LS04	Aircrew Chemical Defense Training	B	2
LS08	Aircraft Ground Egress Training	B	1
PP01	Flight Physical	A	1
★PP11	Physiological Training	QQ	1
Q002	Closed-Book Qualification Exam	C	
RR01	Flight Records Review	A	

NOTES:

★1. Mandatory grounding item on expiration date. Individual will not fly until required training is complete. See AFI 11-403, *Aerospace Physiological Training Program*, for complete guidance.

2. Flight Surgeons without a mobility requirement do not need to accomplish this training.

3. **USAFE: Contractor CRM training fulfills this requirement.**

★4.4.2. Flying Continuation Training Requirements. KC-135 flying continuation training requirements are listed in **Tables 4.6.**, **4.7.**, and **4.8.**

★4.4.2.2. ATD Credit for Training Requirements. Simulator training augments aircraft flight training; it does not replace it. *Flight currency **cannot** be updated in the simulator.* However, pilots may credit flight training events in **Table 4.9** in the ATD if the simulator certification (SIMCERT) documentation shows a training value code of 1 for the event listed.

★Table 4.6. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

		Pilot						Copilot					
Code	Training Event	A	B	C	D	E	*CUR*	A	B	C	D	*CUR*	Notes
F010	Formation Departure and Join-up	1	2	2	2			1	1	1	1		1,2,3
F020	Formation	1	2	3	4			1	1	2	2		1,2,3
F030	Large Formation Departure and Join-up	A	A	A	A			A	A	A	A		1,2, 3
F040	Large Formation	A	A	A	A			A	A	A	A		1,2, 3
F060	AR Formation	1	2	2	2			2	2	2	2		1,2,3
★M005	Dual Qual Sortie	1	1	1	1		*Q*	1	1	1	1	*Q*	12
★M006	Pacer CRAG Block 25 Sortie	1	1	1	1		*Q*	1	1	1	1	*Q*	15
★M007	Pacer CRAG Block 30 Sortie	1	1	1	1		*Q*	1	1	1	1	*Q*	16
M010	Proficiency Sortie	2	2	2	2			2	2	2	2		
★M020	Unit Specific Training Sortie	6	6	6	7			6	6	6	7		1,3
M030	Overseas Sortie	2A	2A	2A	2A			2A	2A	2A	2A		1,2,3,13

★N010	Tanker Rendezvous	4	5	6	7		*60	2, *4	2, *5	3, *6	3, *7	*60	11,14
N020	Tanker En Route Rendezvous	1	1, *2	1, *2	1, *2			1, *2	1, *2	1, *2	1, *2		11
N030	Tanker Point Parallel Rndz	2	2	2	2			1, *2	1, *2	1, *2	1, *2		11
N040	Tanker Anchor Rndz and AR	1	1	1	1			1	1	1	1		1,3
N100	Airborne Alignment	*A	*1	*1	*1			*A	*1	*1	*1		11
N110	Communication Procedures	1	1	2	2			1	1	2	2		7,8
P010	Takeoff-Initial	2	4	6	7	2	Q	2	4	6	7	Q	
★P020	Takeoff	12	18	24	30	6	M	12	18	24	30	M	10
P030	Max Mode Takeoff, 30 Flap	1	1	1	1								
P040	Sim Eng Failure Takeoff Continued	2	2	2	2								
P053	Spiral Up Departure	A	A	A	A								3,13
P061	VFR Overhead	A	A	A	A								3,13
P064	Random Steep Arrival	A	A	A	A								3,13
P065	Curvilinear Approach	A	A	A	A								3,13
★P066	Low Altitude High Speed Departure	SA	SA	SA	SA								3,13
★P070	Instrument Approach	15	20	26	32	6	M	15	20	26	32	M	
P100	Precision Approach	6	6	8	10	2		6	6	8	10		
P110	Non-Precision Approach	6	6	8	10			6	6	8	10		
P130	Circling	2	2	2	2			2	2	2	2		10
P140	Visual Traffic Pattern	2	2	2	2			2	2	2	2		
P160	Missed Approach	2	3	3	3			2	3	3	3		
P170	Appr & GA (Sim Eng Out)	2	3	3	3								
P180	Appr & Landing (Sim Eng Out)	2	2	2	2								
★P190	Landing	12	18	24	30	6	M	12	18	24	30	M	
P191	Landing, FS, Reverse Thrust	2	2	2	2		Q						6
P192	Landing, Night	2	2	2	2		SA	2	2	2	2	SA	
★P200	Touch and Go Landing						M						9
P240	Landing Gear Alternate Extension	A	1	1	1			A	1	1	1		7
P250	Main Flap Manual Operation	A	1	1	1			A	1	1	1		7
★P260	HAVE QUICK Radio Procedures	1	2	2	2			2	2	2	2		
★P270	SECURE RADIO Operation	2	2	2	2			2	2	2	2		
P271	Authentication Procedures	*1	*1	*1	*1			*1	*1	*1	*1		11
P280	ACDTQT	A	A	A	A			A	A	A	A		1
P290	Alert Start	A	A	A	A	A		A	A	A	A		1,2,8
P310	Instructor and Evaluator Duties	2	2										
R010	Receiver AR	4	5	6	7		Q						5
R020	Receiver AR (Night)	1	2	3	3								5
R035	Receiver AR (Heavy Onload)						A						5

R040	Receiver AR Bkwy and Emergency Separation	1	1	1	1			1	1	1	1	5
R050	Receiver AR Tanker Autopilot Off	2	2	2	2							5
R060	Tanker AR	8	9	12	15		*Q*					10
R070	Tanker AR Bkwy Procedures	2	2	2	2			2	2	2	2	
R080	Tanker AR Autopilot Off	2	3	3	3							
R100	Tanker AR Heavy Receiver	2	2	2	2							
★S036	SOAR Rendezvous	SA	SA	SA	SA			SA	SA	SA	SA	4
S200	NVG Operation	A	A	A	A			A	A	A	A	4

NOTES:

1. Pilots assigned to MAJCOM Headquarters, NAF, TACC, formal schoolhouse, and AMWC are not required to accomplish.

★2. MAJCOM and NAF evaluator instructors may receive credit when observing, instructing, or evaluating these events.

3. Not required for formal schoolhouse instructors.

4. Required for SOAR certified pilots only.

5. Required for receiver qualified pilots only.

6. E-model requirement only.

7. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.

8. Only required for units with SIOP DOCs.

9. Currency requirement for ACs only; no currency requirement for IPs.

10. Or as directed by MAJCOM supplement. (P020, ANG may substitute number of times event is accomplished; R060 currency is Q, MAJCOMs may lower number of times required.)

11. *Pacer CRAG qualified aircrew members only.

★12. For dual qualified pilots, one sortie every quarter will be accomplished in Pacer CRAG (Block 25 or Block 30) and non-Pacer CRAG equipped aircraft.

13. N/A for units permanently based overseas.

★14. A qualified Pacer CRAG pilot or navigator non-current in N010 may be supervised by a current and qualified Pacer CRAG IP or IN to regain currency.

★15. For pilots qualified to fly both Block 25 and Block 30 Pacer CRAG equipped aircraft, one sortie every quarter will be accomplished in a Block 25 aircraft.

★16. For pilots qualified to fly both Block 25 and Block 30 Pacer CRAG equipped aircraft, one sortie every quarter will be accomplished in a Block 30 aircraft.

★Table 4.7. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

Navigator		Training Level						
Code	Training Event	A	B	C	D	E	*CUR*	Notes
F010	Formation Departure & Join-up	1	2	2	2			1,2,3
F020	Formation	1	2	3	4			1,2,3
F030	Large Formation Dept and Join-up	A	A	A	A			1,2,3
F040	Large Formation	A	A	A	A			1,2,3
F060	AR Formation	1	1	2	2			1,2,3
★M005	Dual Qualification Sortie	1	1	1	1		*Q*	9
★M006	Pacer CRAG Block 25 Sortie	1	1	1	1		Q	12
★M007	Pacer CRAG Block 30 Sortie	1	1	1	1		Q	13

ID	Description							
M020	Unit Specific Training Sortie	3	5	6	6			3,6
M030	Overseas Sortie	2A	2A	2A	2A			1,2,3,10
★N010	Tanker Rendezvous	4	5	6	7	1	*60*	11
N020	Tanker En Route Rendezvous	1	2	2	2			
N030	Tanker Point Parallel Rendezvous	1	2	2	2			
N040	Tanker Anchor Rendezvous and AR	1	1	1	1			3
N050	Navigation Leg	1	2	3	4			8
N060	Mission Navigation Leg	A	1	2	3			8
N065	Tactical Navigation Leg	A	1	1	1			8
N080	Grid Entry and Exit Exercise	1	1	2	2			8
N090	Control Time and Position Exercise	A	1	1	1			
N100	INS Airborne Alignment	A	1	2	3			8
N110	Communications Procedures	1	2	3	3			6,7
N120	ARDA	1	1	2	2			8
★N130	Receiver Rendezvous	1	2	2	2			4
N136	Rcvr Rendezvous Overrun Procedures	A	1	2	2			4
N150	Celestial Position	2	3	4	5			8
P240	Landing Gear Alternate Extension	A	1	1	1			6
P250	Main Flap Manual Operation	A	1	1	1			6
P270	SECURE RADIO Operation	1	1	2	2			3
P271	Authentication Procedures	1	1	1	1			
★P272	KY 58 Radio Operations	1	1	1	1			1,2
P280	ACDTQT	A	A	A	A			1,3
P310	Instructor and Evaluator Duties	2	2					
R040	Receiver AR Breakaway and Emergency Separation	1	1	2	2			4
R070	Tanker AR Breakaway and Emergency Separation	A	1	2	2			8
★S036	SOAR Rendezvous	SA	SA	SA	SA			5
S101	In-flight Comm Training	A	A	A	A			5

NOTES:

★1. Navigators assigned to MAJCOM Headquarters, NAF, TACC, and AMWC are not required to accomplish.

★2. MAJCOM and NAF evaluator instructors may receive credit when observing, instructing, or evaluating these events.

3. Formal schoolhouse instructors are not required to accomplish.

4. Required for receiver qualified navigators only.

5. Required for SOAR certified navigators only.

6. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.

7. Only required for units with SIOP DOCs.

8. N/A for Pacer CRAG only qualified navigators.

9. For dual qualified navigators, one sortie every quarter will be accomplished in Pacer CRAG (Block 25 or Block 30) and non-Pacer CRAG equipped aircraft.

10. N/A for units permanently based overseas.

★11. A qualified Pacer CRAG pilot or navigator non-current in N010 may be supervised by a current and qualified Pacer CRAG IP or IN to regain currency.

★12. For navigators qualified to fly both Block 25 and Block 30 Pacer CRAG equipped aircraft, one sortie every quarter will be accomplished in a Block 25 aircraft.

★13. For navigators qualified to fly both Block 25 and Block 30 Pacer CRAG equipped aircraft, one sortie every quarter will be accomplished in a Block 30 aircraft.

★Table 4.8. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

Boom Operator		Training Level						
Code	Training Event	A	B	C	D	E	*CUR*	Notes
★M005	Dual Qualification Sortie	1	1	1	1		***Q***	10
M010	Proficiency Sortie	3	3	3	3			2,7
★M030	Overseas Sortie	A	A	2A	2A			1,2,11,12
★N110	Communication Procedures	*1	*1	*2	*2			4,5,9
N140	Celestial Observation	1	2	2	3			6
P240	Landing Gear Alternate Extension	A	1	1	1			4
P250	Main Flap Manual Operation	A	1	1	1			4
P270	SECURE RADIO Operations	1,*1	1,*1	1,*2	*2			9
★P272	KY 58 Radio Operation	1	1	1	1			1,2
P280	ACDTQT	A	A	A	A			2,11
P300	Cargo Loading	1	1	1	1			1,2,4,11
P310	Instructor and Evaluator Duties	2	2					
R070	Tanker AR Breakaway and Emergency Separation	1	1	2	3	1		
R100	Tanker AR, Heavy Receiver	1	2	2	3			
R120	Contacts	15	18	24	30	5	***45***	1
R130	Night Contacts	5	6	8	10		***180***	1,8
R140	Tanker Manual Contact	2	3	4	5			
R150	Fighter Contact	2	2	2	3	1	***180***	1,7
R160	Radio Silent Breakaway	1	1	1	1			2,7
★S036	SOAR Rendezvous	SA	SA	SA	SA			3
S101	In-flight Comm Training	A	A	A	A			3
S200	NVG Operation	A	A	A	A			3

NOTES:
1. BOs assigned to MAJCOM headquarters, TACC, NAF, AMWC, TALCE, formal schoolhouse, and AMOG will use these tables with the following exceptions:
(1) P300 currency requirement is expanded to 1/365 days for MAJCOM; (2) R120 currency requirement is expanded to 1/60 days; (3) R150 currency is 1/365 days with no frequency requirements; and (4) M030 is not required.
2. Not required for formal schoolhouse instructors.
3. Required for SOAR certified BOs only.
4. MAJCOMs may substitute "A" for "1" as directed in MAJCOM supplement.
5. Only required for units with SIOP DOCs.
6. N/A for Pacer CRAG only boom operators.
7. Or as directed by MAJCOM supplement. (R150; MAJCOMs may require "1" for TL A.)
8. Alaska ANG night requirements waived during summer months.
9. *Required for Pacer CRAG qualified boom operators.
★10. For dual qualified boom operators, one sortie every quarter will be accomplished in a Pacer CRAG (Block 25 or Block 30) and non-Pacer CRAG equipped aircraft. This event is creditable only if performing primary, instructor, or evaluator duties. A Pacer CRAG sortie fulfills non-Pacer CRAG proficiency requirements.

11. Boom operators assigned to MAJCOM Headquarters, NAF, TACC, and AMWC are not required to accomplish.

12. N/A for units permanently based overseas.

★4.5.1. Use the following formula to determine training requirements: number of months available times the event volume divided by the number of months in the training period. Round down to the nearest whole number but not less than 1 (e.g. 5.6 rounds to 5). Use **Table 4.10** to determine the number of months available. *EXCEPTION*: When an individual permanently changes station to a unit flying the same model aircraft and enters the same training level or lower, credit may be taken for training accomplished at the previous base. Prorate training requirements based on the time available (time at former base, plus time at new base, minus number of days not available) during the training period. Time available starts 7 days after sign-in for CONUS and 14 days after sign-in for OCONUS or on the date of actual accomplishment of the first training event, whichever occurs first. Subtract previous accomplishments from the prorated total to determine remaining requirements.

★4.5.2. Prorate requirements for individuals changing training levels. Prorate remaining training requirements for new aircraft commanders from beginning of the training cycle to the date entered into Cat I aircraft commander upgrade training. Also, consider aircraft commander upgrade students in a non-flying Temporary Duty (TDY) status during academic portion of training at CCTS.

★**Table 4.10. Individual Availability**.

Days Available	Months Available
0-15	0
16-45	1
46-75	2
76-105	3
106-135	4
136-165	5
>166	6

★5.2.1. **General.** Flying time prerequisites required for upgrade are based on a copilot having gained knowledge and judgment required to effectively accomplish unit missions. Unit commanders must ensure continuation training programs emphasize these areas. Flying experience should include left-seat time prior to entering formal school upgrade training. AC candidates must have an in-depth knowledge of systems, procedures, and instructions before entering the formal upgrade program. The aircraft commander upgrade program (KC-135AC) (formerly PUP) is a formal training course for KC-135 copilots upgrading to AC. The minimum flying hour requirements for AC are listed in paragraph **2.2.1**. All AC upgrades, including in-unit AC upgrades (KC-135ACA), will complete ATS courseware at the formal school. Additionally, the following guidance applies:

★**Table 5.1. In-Unit AC Upgrade Requirements**.

Code	Training Event	Number	Notes
A002	KC-135 AC Upgrade Academic Course	1	
A052	Receiver AR Indoctrination	1	5
AA01	MAJCOM Qualification Evaluation	P	
F010	Formation Departure and Join Up	2P	
F020	Formation	2P	
F060	AR Tanker Formation	2P	
G130	Instrument Refresher Course	1	
★ G252-G256	Refresher Simulators	5	
LS08	Aircraft Ground Egress Training	1	6
M001	Sortie (includes Flight Evaluation)	8P	
N015	Tanker Alternate Rendezvous	P	
N016	Tanker Rendezvous Overrun Procedures	P	
N020	Tanker En Route Rendezvous	2P	
N030	Tanker Point Parallel Rendezvous	2P	
N130	Receiver Rendezvous	4P	5
N132	Receiver Point Parallel Rendezvous	2P	
N135	Receiver Alternate Rendezvous	2P	5
P007	Approach to Initial Buffet and Recovery	P	4
P011	Takeoff-Night	2P	
P012	Takeoff-Gyro Mode	2P	
P015	Instrument Departure	5P	
P020	Takeoff	5P	
P026	Takeoff and Climb Procedures	7P	
P030	Max Mode T/O, 30 Flap	2P	
P040	Simulated Engine Failure, Takeoff Continued	5P	
P071	Holding	2P	
P072	Penetration (Published)	2P	
P073	En Route Descent	2P	
P080	Instrument Approach (Auto or Coupled)	1	
P100	Precision Approach	4P	
P101	ILS Approach	6P	
P102	ILS (Gyro Mode)	2P	
P103	PAR Approach (If available)	P	2
P110	Non-Precision Approach	6P	
P111	VOR/TACAN/FMS Procedures	7P	
P112	VOR/TACAN/Localizer/FMS Approach	7P	
P113	ASR Approach	P	2
P130	Circling	2P	
P160	Missed Approach	6P	
P170	Approach and Go-Around, Simulated Engine-Out	5P	
P171	Approach and Go-Around, Simulated Engine-Out, RPO	2P	
P180	Approach and Landing, Simulated Engine-Out	7P	
P190	Landing	20P	
P191	Landing, Full Stop, Reverse Thrust (If Applicable)	2P	

P192	Night Landing	4P	
P194	Landing, 30-Degree Flaps	2P	
P196	Landing, Full-Stop	7P	
P200	Touch-and-Go Landing	10P	
P240	Landing Gear Alternate Extension	2P	
P250	Main Flap Manual Operation	2P	
P260	HAVE QUICK Radio Procedures	P	
P360	Mission Planning and Briefing	6P	
P365	Autopilot Off Cruise	1	
P366	Checklist Procedures and Use	7P	
P367	Crew Coordination	7P	
P369	Aircraft Equipment Operation	P	
P380	Spoiler and Lateral Control Demonstration	1	
P382	Trim Demonstration	1	
P383	Simulated Jammed Stabilizer Demonstration	1	
Q001	Open-Book Qualification Examination	P	
Q002	Closed-Book Qualification Examination	P	
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	3P	
R010	Receiver AR	7P	5
R020	Receiver AR (Night)	2P	5
R035	Receiver AR (Heavy Onload)	P	5
R040	Receiver AR Breakaway and Emergency Separation	2P	5
R050	Receiver AR, Tanker Autopilot Off	3P	5
R060	Tanker AR	6P	
R070	Tanker AR Breakaway and Emergency Separation	4P	
R080	Tanker AR Autopilot Off	4P	
★R180	Radio Silent Visual Signals	2P	5
R225	Reverse AR	F	3

NOTES: (Any proficiency event with a minimum number may be proficiency advanced with squadron commander approval.)

1. For in-unit AC upgrade, accomplish F010 FTO training once as lead and once in any following position. For in-unit pilot requalification, F010 will not be accomplished as lead.

2. For in-unit AC upgrade, if ASR and PAR approaches are not readily available as determined by the operations officer, this training event may be accomplished in OFT. Method of accomplishment will be annotated in the individual's training record. ANG units without on-station OFT may complete training without this event.

3. For in-unit AC upgrade, accomplish reverse refueling training as an instructor-led ground training seminar.

★4. Accomplished in ATD only. **Not required for USAFE. Conduct ground prebrief and accomplish this event during next continuation training simulator visit.**

5. Required for receiver AR qualification only.

6. Must be accomplished if training will establish a new credit reference year, otherwise credit if accomplished as a copilot during the current year.

★Table 5.3. Instructor Upgrade Flying Time Prerequisites.

Aircrew Position	Total Flying Time (2, 4)	Total -135 Time
Pilot (1)	1500 hours (3, 5)	and 300 hours
Navigator	750 hours	and 150 hours
BO	1500 hours	and 300 hours or
	700 hours	and 500 hours

NOTES:

1. Requires minimum of 6 months experience as an AC.

2. Total flying time is career military flying time logged in the aircrew position the individual will upgrade in. Time includes "student," "other," and level C+ simulator time, but does **not** include time logged in other simulators or other aircrew positions.

3. All category C+ (as certified by HQ AMC/DOT) simulator time in weapon system may be included as KC-135 time and total time for upgrade.

4. The operations group commander may waive the minimum flying hour requirements.

★5. Navigation Systems Operator (NSO) and Third Pilot (3P) time counts towards IP total flying time prerequisite. Squadron commanders ultimately determine how much NSO or 3P time will count.

★5.4. Aircrew Instructor Program. To assure a professionally-trained instructor force, all KC-135 aircrew members initially upgrading to instructor must graduate from the KC-135 Central Flight Instructor Course (CFIC). This course is designed to teach selected aircrew members fundamentals and concepts of instructing. Instructor candidates will be selected based on experience, judgment, ability to instruct, flying skill, and technical knowledge. Individuals who previously attended a formal major weapon system instructor school and were qualified instructors in another MWS, and meet the minimum flying hour requirements of **Table 5.3.**, may upgrade to KC-135 instructor in-unit. Completion of A010, Instructor Academic Training, is not required. Use **Table 1.5.** to conduct in-unit instructor upgrade.

★5.4.3.1. Pilots. Candidates will meet one of these requirements:

★5.6.5.2.4. Certification by the squadron commander.

★*NOTE*: Formation lead certification activity should **not** be accomplished concurrently with initial qualification training. Formation training accomplished during CCTS or in-unit upgrade is creditable for AC upgrades and requalification only.

★5.6.7.2.2.2. DELETED

★5.6.7.2.2.3. DELETED

★5.6.7.2.2.5. S036 SOAR Rendezvous (1)

★6.7.2.3. HQ AMC/DOTK, HQ ACC/XOFS, HQ AETC/DOFM, HQ AFRC/DOTA, ANG/DOOM, HQ PACAF/DOTT, and HQ USAFE/DOTO:

★**Attachment 1**

GLOSSARY OF SUPPORTING INFORMATION

Abbreviations and Acronyms:

A—Annual
★**AAS**—Altitude Alerting System
AC—Aircraft commander
ACDE—Aircrew Chemical Defense Ensemble
ACDT—Aircrew chemical defense training
ACDTQT—Aircrew chemical defense task qualification training
AFFSA—Air Force Flight Standards Agency
AFORMS—Air Force Operations Resource Management System
★**AFMSS**—Air Force Mission Support System
AFRC—Air Force Reserve Command
AFSIR—Air Force Spectrum Interference Resolution
AIFC—Advanced Instrument Flight Center
AMOG—Air Mobility Operations Group
AMWC—Air Mobility Warfare Center
ANG—Air National Guard
APU—Auxiliary Power Unit
AQP—Airport qualification program
AR—Air refueling
A/R—As Required
ARC—Air Reserve component
ARDA—Airborne radar-directed approach
ARPTT—Air refueling part task trainer
ATD—Aircrew training device
ATMS—Automated Training and Maintenance Subsystem
ATOC—Air terminal operations center
ATS—Aircrew training system
ATSO—Ability To Survive and Operate
★**B**—Biennial
BAI—Backup aircraft inventory
BAQ—Basic Aircraft Qualification
★**BIT**—Built-In Test
★**BITE**—Built-In Test Equipment
BMC—Basic Mission Capable
BO—Boom Operator
BOPS—Boom Operator Proficiency Sortie
BOPTT—Boom operator part task trainer
C—Cyclical (17-month qualification evaluation cycle)
CBT—Computer-based training
★**CBIT**—Continuous Built-In Test
CBWD—Chemical-Biological Warfare Defense

CCP—Command and control procedures
CCRW—Command curriculum review workshop
CCTS—Combat Crew Training School
★**CDU**—Control Display Unit
CFIC—Central Flight Instructor Course
CFT—Cockpit Familiarization Trainer
CLRP—Cargo Loading Review Panel
CLT—Cargo Loading Trainer
COMSEC—Communications security
CONUS—Continental United States
COOP-AMC—Continuity of Operations, Air Mobility Command
CP—Copilot
CPT—Cockpit procedures trainer
CRAF—Civil Reserve Air Fleet
CRM—Crew resource management
CSD—Course summary document
CSO—Communication systems operator
CST—Combat survival training
CTA—Chemical threat area
CTD—Celestial Training Device
CUR—Currency
CWD—Chemical Weapons Defense
DNIA—Duties Not Including Alert
DNIF—Duty not including flying
DOC—Designed operational capability
DOT—Director of Training
DQT—Difference qualification training
★**DRCU**—Digital Refueling Control Unit
★**EADI**—Electronic Attitude Director Indicator
EAM—Emergency Action Message
EAR—Event Accomplishment Report
EB—Evaluator boom operator
★**EHSI**—Electronic Horizontal Situation Indicator
★**EGPWS**—Enhanced Ground Proximity Warning System
EMCON—Emission control
EN—Evaluator navigator
EP—Evaluator pilot
ERCC—Engine-Running Crew Change
ERD—Evaluation reference date
ESD—Evaluator standards document
★**E-TCAS**—Enhanced Traffic Alert Collision Avoidance System
FAIP—First Assignment Instructor Pilot
FB—Basic qualified boom operator
FC—Basic qualified copilot
★**FCV**—Fuel Control Valve
★**FDE**—Fault Detection and Exclusion

FE—Flight examiner
FEF—Flight evaluation folder
FLT CC—Flight Commander
★**FMAC**—Fuel Management Advisory Computer
★**FMS**—Flight Management System
FN—Basic qualified navigator
FP—Basic qualified aircraft commander
★**FSAS**—Fuel Savings Advisory System
FST—Flight Simulator Trainer
FTC—Faculty Training Course
FTD—Field Training Detachment
FTL—Flying Training Level
FTO—Formation Takeoff
GATM—Global Air Traffic Management
★**GCAS**—Ground Collision Avoidance System
★**GPWS**—Ground Proximity Warning System
GT—Ground Training
GTAR—Ground Training Accomplishment Report
GTL—Ground Training Level
HOSM—Host operations systems management
HQ—HAVE QUICK or Headquarters
IB—Instructor boom operator
IBT—Instructor-Based Training
ICAO—International Civil Aviation Organization
IFF/SIF—Identification, Friend or Foe, Selected Identification Features
IN—Instructor navigator or intelligence officer or branch
IP—Instructor pilot
IPSS—Inflight passenger service specialist
IQT—Initial qualification training
IR—Infrared
IRC—Instrument Refresher Course
ISD—Instructional systems development
ISOPREP—Isolated personnel report
★**ISO VLV**—Isolation Control Valve
ISS—Instrument simulator sortie
ITUD—Integral Tanker Unit Deployment
L—Lead
L-BAND—Satellite communications frequency
LA—Low Altitude
LAAR—Low Altitude Air Refueling
LL—Low-level
LSE—Life support equipment
★**M**—Monthly
MB—Mission boom operator
MC—Mission copilot
MDS—Mission-design-series (i.e., KC-135R)

★**MFD**—Multi-Function Display
MITO—Minimum interval takeoff
MN—Mission navigator
MOB—Main operations base
MOST—Mission-oriented simulator training
MP—Mission pilot (**not applicable for copilots**)
★**MPRS**—Multi-point Refueling System
MQT—Mission qualification training
MR—Mission ready
MRP—Mission Review Panel
M/S—Mission series
MTL—Master task listing
MWS—Major Weapons System
NAF—Numbered Air Force
NSO—Navigation Systems Operator
NMR—Non-mission ready
NVG—Night-vision goggles
OCONUS—Outside the continental United States
OFT—Operational flight trainer
OG—Operations group
ONP—Overwater Navigation Procedures
OPORD—Operation order
OPR—Office of primary responsibility
OPT—Optional
OSA—Operational Support Airlift
P—Proficient
PAI—Primary aircraft inventory
PDO—Publications distribution office
PFT—Programmed flying training
PPS—Pilot Proficiency Sortie
PTT—Part task trainer
PUP—Pilot upgrade program
★**Q**—Quarterly
QAR—Quality assurance representative
★**QQ**—Quinquennial
RQT—Requalification training
★**SA**—Semiannual
SAAF—Small, austere airfield
SAT—Small Arms Training
SATCOM—Satellite communications
SG—Surgeon general
SIOP—Single-integrated operations plan
SIMCERT—Simulator certification
SKE—Station-keeping equipment
SOAR—Special Operations Air Refueling
SORTS—Status of Resources and Training System

SS—Single-ship
STAN/EVAL—Standardization and evaluation
★T—Triennial
TACC—Tanker/Airlift Control Center (USAF)
TALCE—Tanker airlift control element
TEQ—Training Effectiveness Questionnaire
TERPS—Terminal instrument procedures
TG—Training guide
TL—Training level
TMO—Tanker Manual Operation
TMS—Training management system
TOSM—Tenant Operations Systems Management
TPS—Tactical proficiency sortie
TRP—Training review panel
TTF—Tanker task force
TTNRT—Table Top Navigation and Rendezvous Trainer
TVT—Tactical visual flight rule (VFR) training
UB—Unqualified boom operator
UC—Unqualified copilot
UE—Unit-equipped
UMD—Unit manning document
UN—Unqualified navigator
UP—Unqualified aircraft commander
USAFSAM—United States Air Force School of Aerospace Medicine
UTA—Unit training assembly
WST—Weapon system trainer or water survival training

Terms

Academic training—A course of instruction that includes, but is not limited to, classroom instruction related to aircraft systems and operation, flight characteristics and techniques, performance, normal procedures, abnormal procedures, and emergency procedures. To adequately prepare students, academic courses should be completed prior to simulator or flight training.

Aircraft commander (AC)—Pilot who has been certified to perform "pilot-in-command" duties.

Aircraft systems refresher—Aircraft and crew position unique systems refresher courses.

AR mission—Flight that involves AR procedures as a tanker or receiver aircraft.

Air Reserve Component (ARC)—ANG and AFRC units and aircrews, both associate and unit-equipped.

Aircrew training device (ATD)—Includes cockpit procedures trainer, boom operator part task trainer, weapons systems trainer, operational flight trainer, celestial training device, table top navigation and rendezvous trainer, cargo loading trainer, and other flight simulators.

Aircrew training system (ATS)—Integrated qualification, upgrade, and continuation training program for crewmembers. Civilian contractors conduct most academic and ATD training: Air Force conducts all flight training.

Annual—Training required once every calendar year.

Basic aircraft qualified (BAQ)—Aircrew member who has successfully completed an inflight evaluation but is not mission qualified in his or her assigned aircraft.

Biennial—Training required once every two calendar years.

Boom operator (BO)—Crewmember qualified in boom operator duties.

Communication systems operator (CSO)—Crewmember fully qualified to perform all communication systems operator functions.

Communications security (COMSEC) aid—COMSEC material, other than equipment or devices, that assists in securing communications and which is required in the production, operation, or maintenance of COMSEC systems and their components. Examples are keys, codes, authentication information in physical or electronic form, call signs, frequencies, and supporting documents.

COMSEC Responsible Officer (CRO)—Individual appointed by a unit commander to oversee the unit's COMSEC program as outlined in AFI 33-211, *Communications Security (COMSEC) User Requirements*.

Computer-Based training (CBT)—Ground training system that uses computer-generated graphics or text in conjunction with interactive programs as the primary medium of instruction.

Continuation training—Ground and flight training events necessary to maintain mission-ready or basic aircraft qualification status.

Copilot (CP)—Pilot qualified to perform duties in the right seat only.

Crew Resource Management (CRM) training—Training to improve the teamwork, dynamics, and effectiveness of aircrews.

Critical phases of flight—Take-off, AR, formation, low level, approach, and landing. (AFI 11-2KC-135, Volume 3)

Currency event—Flying continuation training events with prescribed maximum interval-between-accomplishment shown in the "CUR" column.

Cycle—17-month cycle based on inflight evaluation completion date. Instrument refresher course (IRC), open and closed-book testing, and inflight evaluations are required 17 months after previous inflight evaluation. Testing and evaluation will be accomplished during the 6-month period that

includes the qualification expiration month and the 5 preceding months. See AFI 11-2KC-135, Volume 2, *KC-135 Aircrew Evaluation Criteria*, and appropriate MAJCOM supplement.

Difference qualification training (DQT)—Training necessary to qualify an individual in a different tactic or system within the same aircraft or an aircraft that is a different series other than the one in which currently qualified.

Direct instructor supervision—Instructor of like specialty with immediate access to controls (for pilots, instructor will occupy either aircraft commander or copilot seat).

Event or task—A training event to be accomplished. Several events or tasks constitute a training profile.

Experienced Copilot—Copilot with over 500 total flying hours (not including "other" time) of which a minimum of 200 hours are in the Primary Assigned Aircraft (PAA). Individual must also be designated "experienced copilot" by the squadron commander. Designation indicates the squadron commander certifies the individual is progressing normally toward upgrade to aircraft commander.

Familiarization Item—An item completed by demonstration, observation, briefing, or in-seat experience. Proficiency is not required.

Flight examiner or evaluator—A crewmember designated to administer evaluations.

Flight surgeon (FS)—Medical doctor qualified to perform flight surgeon duties and has current aeronautical orders in that AFSC.

Flying Training Level (FTL)—A standard assigned to crewmembers, by the squadron commander, directing flying continuation training requirements.

Ground Training Level (GTL)—A standard assigned to crewmembers, based upon experience and squadron commander recommendation, directing ground continuation training requirements.

Inflight passenger service specialist—Crewmember qualified in inflight passenger service specialist duties.

Instructor—Crewmember trained, qualified, and certified by the squadron commander as an instructor.

Instructor-candidate—An aircrew member undergoing upgrade training to instructor.

Instructor supervision—A qualified instructor of like specialty supervising a maneuver or training event. For critical phases of flight, the instructor must occupy one of the seats or stations, with immediate access to the controls.

Instrument simulator sortie—Simulator training focusing primarily on instrument procedures.

Mission-Oriented Simulator Training (MOST)—Part of a training program (e.g., crew resource management) that includes a practical application, full-mission scenario in the simulator or weapons system trainer.

Mission-ready (MR)—Aircrew member who is current, qualified, and certified in the unit's designated missions.

Mission Review Panel (MRP)—Locally established panel to review previous day's flight and ground training accomplishment.

Monthly—Training required once every calendar month.

Navigator—Crewmember fully qualified in navigator duties.

Night—Defined as after official sunset until before official sunrise (AFI 11-401, *Flight Management*).

Non-mission ready (NMR)—Individual who is non-current or unqualified in the aircraft, incomplete in required continuation training, or not certified to perform the unit missions.

Overseas Sortie (OCONUS Sortie)—A sortie that includes a take-off or landing outside the 48 conterminous states of the United States.

★**Part Task Trainer (PTT)**—A device used to practice a specific task such as cargo door operation, cargo loading training, or receiver AR. PTT also refers to the computer-based system trainer used in Pacer CRAG, FMAC, and other system modifications.

Pipeline—An initial qualification trainee directed for training via the Air Force Personnel Center process.

Primary method—Training conducted normally at a location designated to train a course using a MAJCOM approved syllabus.

Quarterly—3-month periods defined as 1 October to 31 December (first quarter of the fiscal year), 1 January to 31 March, 1 April to 30 June, and 1 July to 30 September.

★**Quinquennial**—Training required once every 5 years.

Refresher simulator—Simulator training emphasizing aircraft systems, normal and emergency procedures, and mission-specific training requirements. Refresher simulators may be integrated into a block of training termed "phase training" for some weapon systems.

Requalification training—Training required to qualify aircrew members in an aircraft in which they have been previously qualified. See chapter 2 for requalification training requirements.

Semiannual—6-month training periods from 1 January to 30 June and 1 July to 31 December.

Simulated engine failure take-off continued (EFTOC)—Practice procedure simulating engine failure after a take-off or touch and go.

Supervised training status—Crewmember will fly under instructor supervision as designated by the squadron commander or evaluator. This status is a result of loss of currency or qualification, or due to less-than-qualified evaluation.

★**Table Top Trainer**—Training device using actual aircraft hardware to train Pacer CRAG FMS and flight display system operation.

Tactical Visual Flight Rules (VFR) Training (TVT)—Weapons system-specific tactical maneuvers. Instruction includes ground training, simulator training, and (if approved by HQ AMC/DO) inflight training. Normal rectangular VFR overheads are not considered TVT maneuvers.

Training devices—All trainers, computer assisted instruction, sound-on-slide programs, videos, and mockups designed to prepare students for flight training or augment prescribed continuation training.

Training Level (TL)—A standard assigned to crewmembers, by the squadron commander, directing continuation training requirements.

Triennial—Training required once every three calendar years.

Upgrade Training— Training to qualify an aircrew member in a higher crew position.

Weapon System Trainer (WST)—Device that provides synthetic flight and tactics environment in which aircrews learn, develop, improve, and integrate skills associated with their crew position. Aircrew members may operate individually or as a team.

★Attachment 2

TRAINING EVENT DESCRIPTIONS

A2.1. Event Identifiers and Descriptions. Listed by function.

A2.2. KC-135 Academic ("A") Training Identifiers.

A001—Initial Qualification Academic Course. Credit may not be awarded until all course requirements are satisfied. This course will be provided in accordance with the CCTS syllabus.

A002—Aircraft Commander Upgrade (KC-135ACA) Academic Course. Accomplish in accordance with CCTS syllabus. Training will include A017. For KC-135E, accomplish in accordance with C-135B/E syllabus.

A003—Senior Staff Orientation Course. Two day orientation course for senior officers. Does not meet the requirements for A004, Senior Staff Course, and does not result in a qualification in the KC-135.

A004—Senior Staff Qualification Course. Senior officer basic qualification academics and ATDs.

A005—PACER CRAG Difference Training.

★A006—MPRS Certification Training.

★A006A—MPRS System Description (IBT).

★A006B—MPRS Specifications and Limitations (IBT).

★A006C—MPRS Normal Procedures (IBT).

★A006D—MPRS Performance (IBT).

★A006E—Abnormal Procedures (IBT).

★A006F—Cautions and Warnings (IBT).

A010—Instructor Academic Training. Accomplish in accordance with CCTS syllabus.

★A017—Publication/Directive Knowledge/Use. For AC upgrades, a minimum of AFI 11-202, Volume 3, AFI 11-401, AFI 11-2KC-135 (Volumes 2, *C/KC-135 Aircrew Evaluation Criteria,* and Volume 3, *C/KC-135 Operations Procedures*), and AFMAN 11-217. For IBO upgrade, a minimum of AFI 11-2KC-135, Volume 1, *C/KC-135 Aircrew Training*, Volume 3, and applicable MDS Tech Orders, with an emphasis on amplified checklist and systems knowledge.

A024—Difference Course (KC-135E).

A026—Difference Course (KC-135E to KC-135R).

A028—Difference Course (KC-135R).

A029—Difference Course. Designed to qualify crewmembers in a different M/S aircraft. Administer when a specific course is not designated.

A032—Difference Course (KC-135T). Pilots must be qualified in KC-135R prior to completing this course.

A034—Requalification Course. Used as abbreviated academic course during requalification for pilots, navigators, and BOs.

A035—R to E Difference Course.

A036—Pacer CRAG Differences Training.

★**A036A—Pacer CRAG Orientation (Block 25) (CBT).**

★**A036A_30—Pacer CRAG Orientation (Block 30) (CBT).**

★**A036B—Flight Management System for Pilots and Navigators (Block 25) (CBT).**

★**A036B_30—Flight Management System for Pilots and Navigators, Part 1 (Block 30) (CBT).**

★**A036BC—Multifunction Displays for Boom Operators (Block 25) (CBT).**

★**A036C_30—Flight Management System for Pilots and Navigators, Part 2 (Block 30) (CBT).**

★**A036D—Color Radar for Pilots and Navigators (Block 25) (CBT).**

★**A036D_30—Color Radar for Pilots and Navigators (Block 30) (CBT).**

★**A036E_30—Advanced Pacer CRAG Operations for Pilots and Navigators (Block 30) (CBT).**

★**A036F—Advanced Pacer CRAG Operations for Pilots and Navigators (Block 25) (CBT).**

★**A036K—Altitude Alerting System (IBT).**

★**A036L—Pacer CRAG Nav Techniques (IBT).**

★**A036M—Pacer CRAG Table Top Trainer.**

★**A036N_30—EGPWS (Block 30) (CBT).**

★**A036NC—Multifunction Displays for Navigators (Block 25) (CBT).**

★**A036NE—Basic Pacer CRAG Operations for Navigators (Block 25) (CBT).**

★**A036PC—Multifunction Displays for Pilots (Block 25) (CBT).**

★**A036PE—Basic Pacer CRAG Operations for Pilots (Block 25) (CBT).**

A037—SIOP Performance Training. Thorough review of SIOP performance data computations.

A044—Instructor (CFIC) Preattendance Workbook. Must be completed prior to beginning instructor academic training (A010).

A052—Receiver AR Indoctrination. Familiarization training consisting of AR missions in AR part task trainer.

A053—Receiver AR (Initial).

A060 —Flight Examiner Course.

★**A101_30—Multifunction Displays for Pilots (Block 30) (CBT).**

★**A102_30—Basic Pacer CRAG Operations for Pilots (Block 30) (CBT).**

★**A103—E-TCAS for Pilots (Block 25) (CBT).**

★**A103_30—E-TCAS (Block 30) (CBT).**

★**A201_30—Multifunction Displays for Navigators (Block 30) (CBT).**

★**A202_30—Basic Pacer CRAG Operations for Navigators (Block 30) (CBT).**

★**A301_30—Flight Instrument Familiarization for Boom Operators (Block 30) (CBT).**

★**A302_30—EADI for Boom Operators (Block 30) (CBT).**

★**A303_30—EHSI for Boom Operators (Block 30) (CBT).**

★**A304_30—Basic Instrument Procedures for Boom Operators (Block 30) (CBT).**

★**A305_30—3-Person Operations for Boom Operators (Block 30) (CBT).**

★ **A400_30—Pacer CRAG Block 25 to Block 30 Differences (CBT).**

★ **A401_30—Pacer CRAG Block 25 to Block 30 Differences for Boom Operators (IBT).**

★**C101—Pacer CRAG FSAS for Pilots.**

★**C101_30—Pacer CRAG Block 30 FSAS.**

★**C200—AFMSS Portable Flight Planning Software.**

★**PTT25—KC-135 Pacer CRAG PTT (Block 25).**

★**PTT30—KC-135 Pacer CRAG PTT (Block 30).**

A2.3. Formation ("F") Training Events: Copilots will log applicable events when performing copilot duties.

 F010—Formation Departure and Join-Up. Includes buddy departure. Procedures specified in AFI 11-2KC-135, Volume 3, Chapter 18, and Technical Order (TO) 1-1C-3. For initial qualification and AC Upgrade training, pilots must accomplish once as lead and once in trail. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit.

★**F020—Formation**. Follow procedures from AFTTP 3-1, Volume 22, *Tactical Employment, KC-135/KC-10*, and AFI 11-2KC-135, Volume 3, Chapter 18. At least 30 minutes of formation should be planned and accomplished. Aircraft commanders must brief that portion of the mission that they will be lead. Accomplish using EMCON 2 procedures (**not applicable for formal schoolhouse**). Accomplish P260 and P270 during each formation flight. Essential radio communications required for safety of flight or failure to accomplish a P260 or P270 does not preclude crediting the event. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit. Log only one F020 per sortie. For Pacer CRAG training, the intent is to gain proficiency preflighting and operating TCAS for station keeping. For Pacer CRAG aircrews, this item is creditable from lead or wing position.

 F030—Large Formation Departure and Join-Up. Three or more aircraft in cell formation (either KC-135s or a mix with KC-10s). Dual log with F010. Any position is creditable. Must be flow through completion of level-off or join-up, whichever occurs first. Emission options 2 and 3 should be used the entire flight to include preflight, formation departure, and join-up. Does not preclude required air traffic control (ATC) reporting procedures on peacetime training missions or other emissions required for safety of flight.

 F040—Large Formation. In addition to F020 requirements, accomplish 30 minutes of formation with a flight of three or more aircraft (either KC-135s or a mix with KC-10s). Dual log with F020. Copilots must demonstrate proficiency in copilot duties to receive credit.

 F060—AR Formation. 15 minutes of AR formation required. Consists of rendezvous and AR procedures prescribed by AR TOs and AFI 11-2KC-135, Volume 3. Every attempt should be made to accomplish once as lead and once as number two in the semiannual training period.

A2.4. Ground Training ("G") Events:

A2.4.1. Responsibilities:

A2.4.1.1. The wing commander will ensure ground training programs are supported by all agencies involved. Host and tenant units will develop agreements to provide required support for training.

A2.4.1.2. The operations group commander is responsible for establishing and maintaining the academic training program for non-ATS courses. The operations group commander may delegate this responsibility to squadron OPRs. The operations group or squadron OPR will:

A2.4.1.2.1. Appoint primary and alternate instructors for each non-ATS course to be taught.

A2.4.1.2.2. Publish a weekly ground training schedule to include date, time, location, attending students and instructor for each course (ATS and non-ATS) scheduled (AFRC/ANG may publish monthly due to UTA schedule). If a designated instructor for any course is not available, another academic instructor may teach the course. This substitute instructor must be approved either by the squadron commander or designated representative (non-ATS only) and must be given sufficient time to prepare. If either condition is not met, the course will be rescheduled.

A2.4.1.2.3. Utilize MAJCOM, ATS, or unit-developed products or syllabus for all courses as applicable. Local supplements to courseware is encouraged. Units will locally reproduce MAJCOM provided courseware. Also, units will manage and administer computer-based training (CBT) programs and interactive courseware (ICW) products when made available.

A2.4.1.2.4. Develop a procedure to monitor the academic training program for course content, currency of materials, instructor availability, and status of training aids. Recommend to the commander changes to existing courses or additional academic training courses required, based on crewmember feedback.

A2.4.1.2.5. Send recommendations for changes, additions, and deletions of courses through appropriate channels to appropriate MAJCOM with an information copy to HQ AMC/DOT.

A2.4.1.3. Instructor Selection and Training. The operations group commander will select course instructors for non-ATS courses on the basis of professional qualifications and aptitude to teach. Instructors must complete either a formal school or a local training program before assuming instructor duties. Local academic instructor program will follow guidance in AFMAN 36-2236, *Guidebook for Air Force Instructors*.

NOTE: An individual who instructs a class receives credit for that academic training requirement.

A2.4.1.4. Records and Documentation. Units will use AF Form 1522, **AFORMS Additional Training Accomplishment Input**, and AF Form 3526, **AFORMS OMR Event Accomplishment Report.** Course instructors will deliver completed forms to the appropriate scheduling and training

documentation sections within one duty day after the class is taught. Small arms training will be recorded on AF Form 522, **USAF Ground Weapons Training Data**.

A.2.4.2. Course Descriptions:

G002—Aircraft Marshaling Training and Examination:

Purpose. To ensure crewmembers understand proper marshaling procedures preventing aircraft taxi incidents.

Description. Review of AFI 11-218, *Aircraft Operation and Movement on the Ground*, followed by a 20-question test.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Squadron

G003—Flightline Drivers' Training and Examination:

Purpose. To ensure crewmembers understand proper flightline driving and security procedures. Crewmembers who are required to drive on the flightline must receive this course.

Description. Training, examination, and certification to drive vehicles on the flightline according to local procedures. Also, includes a briefing by the flightline constable covering the physical layout of restricted areas and owner or user responsibility for security reporting and detection.

OPR:
MAJCOM: HQ AMC/DOA/SFO
Unit: Chief, Airfield Management and Flightline Constable

G010—Chemical-Biological Warfare Defense (CBWD):

Purpose. To successfully survive and fight in a chemical or biological environment while wearing the ground crew individual protective equipment.

Description. Lesson summary: Academic and hands-on training on ground crew protective equipment components (AFI 32-4001, *Disaster Preparedness Planning and Operations* and AMCP 36-4, *Air Base Operability Training*). Units may combine this training with LS04 (Aircrew Chemical Defense Training), provided both aircrew and ground ensembles are fully covered. Aircrew specific procedures will be covered by Aircrew Life Support personnel. Ground crew protective equipment will be covered by instructed by qualified CE readiness personnel under the auspices of the CE Readiness Flight.

OPR:
MAJCOM: HQ AMC/CEO

Unit: Civil engineering readiness flight
Curriculum development: HQ AFCESA/CEX, local civil readiness flight
Instructor: Qualified CE readiness instructor

G025—Aircraft Field Trip:

Purpose. To familiarize students with all crew stations and functions of other crewmembers to facilitate proper crew coordination.

Description. Instructors determine field trip content based on the experience and training status of the student. Instructors will discuss or demonstrate crewmember responsibilities during emergency conditions.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: Squadron

Additional Information. Must be accomplished before initial flight in the KC-135 or in a different mission or series of a -135 aircraft. May be accomplished in conjunction with G020, Egress Training. Initial qualification navigators and BOs must install nose gear down lock pin from lower nose compartment through observation window.

G030—SIOP Command and Control Procedures:

Purpose. To ensure positive control (PC) crewmembers understand command and control procedures as they relate to the SIOP mission.

Description. Practice in SIOP message decoding and operational reporting procedures as outlined in EAP-STRAT, volume 5. Includes self-study time, emergency action message (EAM) practice tape tests and a EAM tape evaluation with an open-book written test on concepts from EAP-STRAT, volume 5.

OPR:
MAJCOM: HQ AMC/DOOC
Unit: Command post
Training aids and media: PC training material as required
Instructor: Command post personnel designated in writing as a CCP instructor

G031—Initial SIOP Command and Control Procedures: Overview of SIOP command and control procedures as outlined by EAP-STRAT, volume 5, and will include a review of operational reports in annex A to EAP-STRAT, volume 6.

G033—Unit Alert Procedures:

Purpose. To ensure newly assigned crewmembers understand local procedures, policies, and requirements associated with Alpha and Bravo alert duty.

Description.   Course includes required professional gear, crew rest requirements, alerting procedures, alert area entry and exit procedures, standard maintenance procedures, alert response routing, specialized briefing requirements, aircraft acceptance and cocking, uncocking and recocking, scramble procedures, daily alert preflight, and alert postures. Scramble and alert start procedures require a tour of the physical layout of local alert taxi routes for launch, increased posture, and exercise recoveries. Emphasis is given to hazards of taxi obstacles, sharp turns, excessive taxi speed, adverse weather, and darkness. Covers all local base and wing directives concerning local and satellite alert operations.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: Squadron

G034—Minimum Interval Take-Off Procedures:

Purpose. Review of procedures and techniques used to launch the maximum number of aircraft in a minimum time interval to improve the survivability of the KC-135 force in an emergency war order situation.

Description. Instructor-lead discussion on the aerodynamic differences between a 12- to 15-second MITO and a 30-second formation takeoff, to include local area procedures.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Curriculum Development: ATS contractor and squadron
Training aids and media: CBT (when available) and MITO instructor guide

G035—PLZT Goggle Training:

Purpose. Familiarize crews with proper handling, donning, testing and storage of EEU-series PLZT goggles.

Description. On modification of their helmet, and with the assistance of a life support technician, each crewmember will demonstrate how to properly handle, don, test and store the PLZT goggles to include locating and installing the power cables. In addition, crews will be familiar with all contents of the flash blindness kits.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Squadron life support
Training aids and media: PLZT goggles, modified helmet
Instructor: Life support technician

G036—Flash Blindness and Thermal Protection:

Purpose. Familiarize crews with proper handling and installation of thermal curtains and donning the eye patch or gold goggles, if available.

Description. Each crewmember will demonstrate where to locate and how to properly handle and install the thermal curtains and don the eye patch or gold goggles, if available.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Squadron
Training aids and media: CBT and instructor led demonstration in the aircraft.
Instructor: Squadron instructor

G040—SIOP Study:

Purpose. To provide certified crewmembers the information necessary for the effective and successful completion of the unit's SIOP mission.

Description. This course will review USSTRATCOM and AMC SIOP procedures. The lesson should be based on any procedural changes that have been implemented. Crews should be given a period of crew-study to assist in strengthening weak areas. Staff specialists should be available to answer crewmember questions. The unit's SIOP study should cover the overall SIOP with emphasis on the unit's SIOP mission.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: XP
Instructors: XP and applicable wing staff agencies as required.

Additional Information. All crewmembers in units with a primary or secondary SIOP DOC statement will receive this training.

G041—Unit Mission Briefing. Briefing by unit operations plans on sortie requirements and operations procedures applicable to the unit's mission.

★G060—Tactics:

Purpose. To provide the crewmember with information necessary for the effective and successful completion of the unit's assigned employment mission.

Description. This course will include both specialized briefings and individual or crew study of all areas pertinent to the completion of the unit's assigned tasking. The lesson will be based on information contained in AFTTP 3-1, volumes 1, 2, and 22, and any documents pertinent to completing the unit's assigned mission. Staff specialists will be available during periods of crew self-study to assist in strengthening weak areas and answering any questions. Each unit's initial

tactics training should be tailored to unit's mission tasking, however, as a minimum, the course should cover the following:

Unit Mission Brief:	Composite Force Structure:
SIOP (if applicable)	Operations theory
Conventional employment	Threat warning and information dissemination
Tasking under regional OP plans	Close control versus broadcast (bullseye) contr
Peacekeeping operations	High value airborne asset (HVAA) protection
Aircraft Systems:	Low level navigation and AR (if required)
Have Quick	Large formation operations
KY-58	**Exercise and Conflict Lessons Learned**:
Unit specific equipment (NVG, etc.)	Unit lessons learned
ATO and SPINS:	MAJCOM and theater lessons learned
ATO breakout and use	**Threat System Description and Capabilities:**
SPIN usage	Surface-to-air and air-to-air systems(including
Use of code words	Blue and gray threat)
IFF procedures	Threat employment doctrine
Aircraft Aerodynamics:	**SAFE PASSAGE**:
Energy Management	Friendly air defense systems
Fighter maneuvers against AMC aircraft	Authentication procedures
Tactical maneuvering against threat	Airspace control and air defense measures
Compare threat aircraft to AMC aircraft	Unit and theater specific SAFE PASSAGE procedures
Defensive Maneuvering:	**Tactical Deception**:
Long range and radar missile defense	Basic principle and concepts
Short range IR and guns	AMC aircraft participation and involvement

OPR:
MAJCOM: AMWC, HQ AMC/DOK

Unit: Tactics Branch

Training aids: As required (video: Safe Passage Procedures for Aircrews)

Instructors: Tactics instructors and applicable wing staff agencies, as required

Additional Information. Written criterion tests (as required) may be given individually or as a crew effort.

G070—Aircrew Intelligence Training:

Purpose.   Enhances crewmember understanding of the threat to unit assets and directly contributes to mission success and aircrew survival. Includes unit mission intelligence brief. Training will be conducted by intelligence personnel in coordination with tactics officers, base judge advocate general and security police, as appropriate, to meet aircrew training requirements.

This 3-hour annual training requirement may be separated into two 1.5 hour sessions taught semiannually. Credit event on completion of all required training.

Description. See AMCI 14-101, *Unit Intelligence Management*. (AFI 14-103, *Threat Recognition Training Program*).

OPR:
MAJCOM: HQ AMC/INF
Unit: Intelligence officer, JA, SF
Curriculum development: Unit
Instructor: Qualified intelligence instructor.

Additional Information. "Laws of armed conflict" (LOAC) and "protection from terrorism" (PFT) may be taught in conjunction with Aircrew Intelligence Training (requires scheduling additional time beyond 3 hours scheduled for AIT). Coordinate with the staff judge advocate for LOAC training and the security police for PFT training. The unit intelligence officer may administer an aircrew intelligence related test to determine if additional training is required.

★**G080—Communications Procedures**:

Purpose. To ensure crewmembers possess a thorough knowledge of all communication and COMSEC requirements.

Description. This course includes detailed discussion of equipment operation, procedures, and training requirements applicable to peacetime and wartime communications operations. The following subjects will be covered:

Authentication procedures	SIOP
IFF/SIF codes and equipment operation	AFSIR
HAVE QUICK	Flight Information Handbook
KY-58, SECURE VOICE Radio	AMCH 33-1, *Aircrew Communications Handbook*
L-Band SATCOM	COMSEC user requirements
Other communications information pertinent to unit	

OPR:
MAJCOM: HQ AMC/DOT/DOA/CPSS/STSP

Unit: ATS contractor, Combat Crew Communications, COMSEC responsible officer (CRO), and wing, operations group, and squadron training personnel.

Training Aids: COMSEC handling procedures may be completed by CBT or IBT. CSO will ensure classified portion is briefed during G040 SIOP study. **USAFE personnel may receive classified portion during annual MAJCOM directed training.** Do not log in AFORMS until both parts are complete.

Instructor: Wing, operations group, and squadron training personnel if instructor led.

G082—KY58 Radio Academics.

G090—Anti-Hijacking:

Purpose. To provide aircrews with training on US Air Force policy and guidance on preventing and resisting aircraft piracy (hijacking).

Description. This training will consist of a review of AFI 13-207 and a criterion test (AFI 13-207, *Preventing and Resisting Aircraft Piracy [Hijacking]*).

OPR:
MAJCOM: HQ AMC/DOT.
Unit: ATS contractor and squadron.
Curriculum development: As required.
Training aids: CBT fulfills requirement. May use AFI 13-207 and unit developed criterion test.
Instructor: Unit designated instructor if instructor led.

G100—Laws of Armed Conflict:

Purpose. To ensure crewmembers understand the LOAC.

Description. This training includes the principles and rules of the LOAC for aircrews to carry out their duties and responsibilities according to the Hague Convention IV of 1907, the 1949 Geneva Conventions, and status of forces agreements.

OPR:
MAJCOM: HQ AMC/JAG
Unit: ATS contractor and JA
Training aids: CBT fulfills requirement. May be instructor led.
Instructor: JA or intelligence officer if instructor led.

Additional Information. Due to the different mission requirements, units have the option of putting increased emphasis on those areas in the course of particular interest to them. During wartime or contingency operations, the intelligence officer may brief LOAC with prior coordination between JA and intelligence. Intelligence is only responsible for presenting the JA's scripted briefing.

G110—Force Protection Requirements:

Purpose. To provide detailed guidance for reporting and preventing terrorist activity.

Description. This course covers information on threat conditions (THREATCON), security reporting, safeguarding aircraft and COMSEC equipment, and individual responsibilities and protective measures. (AFI 31-210, *The Air Force Antiterrorism (AT) Program*).

OPR:
MAJCOM: HQ AMC/SF
Unit: ATS contractor and Security Police Squadron
Training Aids: CBT fulfills requirement. May be instructor led.
Instructor: Flight constable or resource protection NCO (if instructor led).

G120—ISOPREP Review: Review of isolated personnel report (ISOPREP) card.

Purpose. To generate, review, and ensure accuracy of crewmembers isolated personnel report (ISOPREP) card.

Description. Currency expires 180 days from date of accomplishment (AFDD 34, *Combat Search and Rescue Operations*).

OPR:
MAJCOM: HQ AMC/IN
Unit: Intelligence officer

★**G130—Instrument Refresher Course (IRC)**:

Purpose. To ensure pilots and navigators possess sufficient knowledge of all applicable directives, procedures, and techniques to assure safe and professional instrument flying.

Description. Guidance for development of unit IRC programs, including topics and subject outlines, course length, instructor prerequisites, and methods of instruction are contained in AFMAN 11-210, Instrument Refresher Course Program. IRC is accomplished according to AFI 11-2KC-135, Volume 2 and applicable MAJCOM Supplement. However, the IRC test must be completed within the checkride eligibility period. (AFMAN 11-210, *Instrument Refresher Course (IRC) Program).*

OPR:
MAJCOM: HQ AMC/DOT

Unit: Operations group commander
Curriculum development: Air Force Flight Standards Agency (AFFSA

Training aids: 436th Training Squadron (ACC) Dyess AFB, Texas, Program 1115, Instrument Refresher Course (instructor guide, student guide, 35mm slide presentation). (*NOTE*: Although this program is an ACC product, it can be modified, based on the unit mission, for application all weapon systems.) USAF Core IRC available from HQ AFFSA at URL http://www.aon.af.mil/affsa/irc.htm fulfills part of AFMAN 11-210 IRC requirements. Additional support is available from HQ AMC/DOT. Unit program development assistance can be obtained by contacting HQ AFFSA, as part of their IRC Roadshow.

G150—TERPS. Seminar for boom operators providing instruction to safely monitor all instrument departures and approaches.

Purpose. Provide boom operators with the knowledge and skills necessary to monitor the briefed departure and approach and advise the pilots of any deviations that would compromise safety.

Description. Training for boom operators to monitor navigation equipment for correct settings and pilots instruments to ensure the departure and approach procedures are being accomplished as briefed. Course includes:

A breakdown of standard DoD approach plates
Explanation of aircraft navigation equipment
Departure and terminal arrival procedures
Instrument approach types
The initial approach portion to the final approach portion
Final approach procedures

OPR:
MAJCOM: HQ AMC/DOT
Unit: ATS contractor and squadron
Training Aids: CBT fulfills requirement

G155—Supervised FLIP Study and International Civil Aviation Organization (ICAO) Procedures:

Purpose. Instructor-led review of flight rules and procedures in overseas areas of operation. Course is appropriate for predeployment training.

Description. Instruction on the location of information, flight rules, and procedures in overseas areas. Includes a review of Foreign Clearance Guide use, organization, and content. Also includes review of FLIPs in relation to ICAO procedures. Supplemental information on Jeppesen publications, summary of airfield restrictions, and aircrew border clearance guide is also presented.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Training aids and media: G607/G155 instructor guide with listed classroom aids and graphics.

G160—Overwater Navigation Procedures:

Purpose. To ensure navigators understand overwater navigation procedures and techniques, as well as inherent equipment limitations, to successfully accomplish extended overwater navigation missions.

Description. Course provides navigational techniques, equipment limitations, and safety considerations to be used in overwater navigation. Essential elements of overwater mission

planning, such as ICAO procedures, FIRs, overwater track system, reporting and fix requirements will be covered.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Training aids and media: CBT or instructor led discussion/CTD. CBT fulfills requirement.

Additional Information. If instructor led, instructors have the option to use a CTD exercise as an evaluation or criterion test.

G161—Polar Navigation Procedures:

Purpose. To ensure navigators have sufficient knowledge of polar navigation procedures to deploy to and navigate in polar regions.

Description. Course provides navigators with a thorough review of polar navigation procedures and techniques, celestial considerations, equipment operations and limitations, and inflight operations. An associated CTD requires working knowledge of polar chart projections, polar and subpolar grid formulas, chart transition, and high latitude celestial computations.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Training aids and media: CBT, G161 Instructor Guide. CBT fulfills requirement.

G170—Celestial Training Device:

Purpose. To provide navigators practice in celestial navigation procedures, pacing, and computations on a real-time ATD.

Description. The CTD consists of a keyboard, CRT, printer, and microcomputer. The CTD program simulates worldwide sun, moon, and planet data for the performance of day and night celestial navigation. Continuation training requirements call for all navigators to complete a minimum of one CTD per year. Ground Training Level 3 navigators will complete at least one per semiannual period. Units may be more restrictive in their local instructions.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: Squadron

G171—Polar Grid CTD Profile.

G172—Twilight CTD Profile.

G173—Southern Latitude CTD Profile.

G174—Unit Option CTD Profile. CTD profile determined by unit training managers.

G175—Table Top Navigation and Rendezvous Trainer.

G182—Hazardous Cargo:

Purpose.   To familiarize crewmembers with procedures and restrictions when carrying hazardous materials.

Description. Provides instruction reviewing AMC aircrew hazardous materials procedures and AFI 11-204. (AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments;* AFI 11-204*, Operational Procedures for Aircraft Carrying Hazardous Materials*). The syllabus includes:

Hazardous Classification	Aircraft Loading and Passenger Movement
Packaging	Tactical and Contingency Airlift
Marking and Labeling	Aircrew Responsibilities
Certification	

OPR:
MAJCOM: HQ AMC/DOT
Unit: ATS contractor
Training Aids: CBT

G183—Floor Loading:

Purpose. To provide BOs instruction in loading non-palletized cargo on KC-135s not fitted with cargo roller systems.

Description.   Training consists of CBTs, a cargo loading exercise, manual DD Form 365-4, **Weight and Balance Clearance Form F—Tactical**, computation, and emergency procedures review. Planned cargo load plans will be loaded on the aircraft and critiqued by the instructor. Aerial refueling program managers may exempt highly experienced boom operators from the aircraft loading exercise; boom operators assigned to HQ AMC agencies and NAF/DOV are also exempt from this requirement.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Training aids and media: Load plans, CBT
Instructor: Qualified cargo loading instructor

G184—Palletized Cargo Loading:

Purpose. Provide BOs instruction in loading palletized cargo on KC-135s fitted with the cargo roller system.

Description. Training consists of classroom instruction and a cargo loading exercise. Topics include roller system installation and removal, cargo limitations and restrictions, loading and unloading procedures, ATOC communications and coordination, passenger considerations and customs procedures.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor and squadron
Training aids and media: CBT fulfills requirement
Instructor: Qualified cargo loading instructor

★**G190—Aircraft Servicing**:

Purpose. To ensure all aircrew members are familiar with the procedures necessary to service their aircraft at a post-SIOP recovery base when qualified maintenance support is not available. Completion of this course does NOT qualify crews to perform maintenance tasks, but does allow them to assist qualified maintenance personnel in ground refueling operations.

Description. Classroom instruction or CBT covering servicing requirements of the aircraft, safety, approved fuels, lubricants and fluids, frequency of servicing, and aircraft servicing locations and requirements. Course includes field trip for hands-on demonstration by qualified maintenance personnel or a unit instructor boom operator who has completed the Maintenance Qualification Training Program (MQTP) for servicing. **For USAFE CBT fulfills requirement**.

OPR:
MAJCOM: HQ AMC/DOTK

Unit: ATS contractor and squadron

Training aids and media: CBT or classroom instruction.

Instructor: Qualified maintenance personnel/unit instructor boom operator who has completed MQTP.

G210—Alert Start Procedures:

Purpose. To ensure pilots are able to perform the procedures required to quick start an aircraft cocked on alert status.

Description. Course covers the physical characteristics, operating procedures, checklists, and cockpit indications of normal and abnormal APU alert starts. Pilots will review hazardous area limits during alert starts.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training Aids: CBT fulfills requirement.

Additional Information. G210 must be completed prior to the initial accomplishment of P290, Alert Start. Initial accomplishment of G210 may be done in conjunction with G033, Alert Procedures.

★**G215—EADI Multifunction Display for Boom Operators (CBT):**

Purpose. To provide an annual review of the EADI symbols and displays.

Description. Lesson provides a review of the EADI symbols and displays, including warning flags, and a series of problems and questions to answer. It is intended to be taken only by boom operators.

OPR:
MAJCOM: HQ AMC/DOTK

Unit: ATS Contractor

Training aids and media: CBT fulfills requirement

G222 through G227—Aircraft Systems Refresher:

Purpose. To provide an annual review of critical aircraft systems in conjunction with systems refreshers accomplished in the ATD.

Description. Lessons cover hydraulic system (G222), flight controls (G223), fuel system (G224), electrical system (G225), environmental system (G226), and engines, propulsion system and APU (G227). In addition, BOs have special lessons in electrics and fuel systems (G228) and AR system (G229).

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training aids and media: CBT fulfills requirement.

Additional Information. Pilots must complete systems refresher courses G222-G227. Navigators need complete only the APU portion of G227. BOs must complete G228-G229 and the APU portion of G227.

NOTE: G222-G227 are required annual refresher training CBTs in aircraft systems knowledge for all pilots, whether or not a simulator is available.

★G230—Crew Resource Management (CRM) Refresher:

 Purpose. Mission-specific continuation CRM training conducted according to AFI 11-290, *Cockpit/Crew Resource Management Training Program.*

Description. Reinforces initial CRM training through an academic review of the common core subjects (according to AFI 11-290) with specific emphasis on an annual refresher topic.

OPR:
MAJCOM: HQ AMC/DOT
Unit: ATS contractor

Additional Information: G230 must be accomplished before G240, CRM Simulator (N/A for ACC). Completion of any CRM prework is required prior to attending CRM refresher training. Prework will be distributed to organizations in sufficient time and supply to allow completion. **USAFE: Contractor CRM training fulfills this requirement**. **Currency is once every 24 calendar months.**

★G231—Initial Crew Resource Management (CRM):

Purpose. Aircraft and crew-specific CRM training conducted according to AFI 11-290, *Cockpit/Crew Resource Management Training Program.*

Description. Introduces common core subjects (according to AFI 11-290). If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station. Dual log with G230 for AFORMS tracking purposes.

OPR:
MAJCOM: HQ AMC/DOT

Unit: ATS contractor

Additional Information. Completion of any CRM prework, if applicable, is required prior to attending CRM training. Prework will be distributed to organizations in sufficient time and supply to allow completion. Dual log accomplishment of G231 with G230 for AFORMS tracking purposes. **USAFE: Contractor CRM training fulfills this requirement**.

G232—Instructor and Evaluator CRM. One-time requirement taught during instructor upgrade.

G234—FSA/CAS. Instruction on the operation of the FSA/CAS in the E model. Available on CBT.

★G240—Crew Resource Management (CRM) Mission Oriented Simulator Trainer (MOST) Simulator:

Purpose. To provide hands-on application of classroom-presented CRM refresher concepts through CRM simulator training addressing human factors issues in a realistic mission scenario.

Description. CRM Mission Oriented Simulator Training conducted according to AFI 11-290, *Cockpit/Crew Resource Management Training Program.*

OPR:
MAJCOM: HQ AMC/DOT
Unit: ATS contractor

Additional Information. Should be accomplished in conjunction with G230, CRM Refresher. Optimal scheduling of CRM simulator is not later than 5 days following completion of G230. **USAFE: Contractor CRM training fulfills this requirement**. **Currency is once every 24 calendar months.**

G244—Crew Coordination.

Purpose. To improve non-pilot crewmembers knowledge of standard indications and settings for the pilot's instruments and flight controls for takeoff, approach and landing.

Description. Course details the proper settings for trim, spoilers, flaps, brakes, etc., and proper indications for altimeters, starter switches, fuel panel, etc., for takeoff, approach, and landing phases. Also includes required briefing items.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training Aids: CBT

Additional Information. Course is available on CBT and is available for units as a unit directed training event if desired.

★**G251—ATD Differences Training Profiles.**

G252-G256—Refresher Simulators:

Purpose. To review annually normal, abnormal, and emergency procedures; aircraft performance; and aircraft systems.

Description. ATS contractor-administered simulator courses for pilot and copilots. Simulators accomplished annually: G252, Electrics; G253, Hydraulics, G254, Engines, G255, Fuels, and G256, Pneumatics/Aerodynamics.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor

Additional Information. Completion of AC Upgrade and CFIC sims are creditable for continuation training.

★**G257—KC-135E Simulator**. Dual log with G990/G991.

G258—Boom Operator Part Task Trainer (BOPTT). Training emphasizing boom operator AR training.

★**G258A-E—Pacer CRAG Differences Training OFT Profiles**. Five profiles, beginning with basic and normal procedures and progressing through more challenging scenarios, culminating in a CRM period in OFT 5 (E). Boom operators attend the fifth (E) OFT period.

G259—Requalification Simulator.

G260—Instrument Simulator:

Purpose. To review annually the instrument flying procedures found in AFMAN 11-217 with special emphasis on ICAO instrument flying procedures.

Description. ATS contractor administered simulator courses for pilots and copilots. Includes pre-attendance study materials and prebrief. Profile includes ICAO low altitude instrument approaches, fix-to-fix navigation, and holding pattern and procedure turn entries.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS Contractor

G270—Tactics Simulator:

Purpose. To practice tactical maneuvers applicable to the KC-135 in the simulator prior to attempting maneuvers in flight.

Description. Units should tailor the simulator to their specific taskings. Prebrief should discuss threat briefs, ATOs and SPINs, mission planning, and threat awareness and avoidance. Profile includes maneuvers described in AFI 11-2KC-135, Volume 3, Chapter 22. Maneuvers include but are not limited to: retrograde and extension maneuvers, IR missile defense and gun jink maneuvers, combat departures and arrivals, and toboggan descent to low altitude AR.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: Tactics program manager
Instructor: Unit tactics instructors

Additional Information. Because no specific threat information is required for this training, the simulator is unclassified. Tactic simulators can only be given during unit directed (i.e.,

government use) periods and should not interfere with ATS contract training. Instruction will be given by tactics instructors, but actual simulator operation will be done by the ATS contractor. A full crew complement is highly recommended to enhance crew coordination, aircrew survival, and overcome systems degrades. *NOTE*: Not required for units without a simulator.

G280—Small Arms Training:

Purpose. To train crewmembers in successful engagement of enemy targets within the range and capabilities of their assigned weapon.

Description. Academics and firing range exercise; includes use of force, live fire, or firearms simulator training; simulator training may not be used for initial training (AFI 36-2226, *Combat Arms Training and Maintenance (CATM) Program*, AFI 31-207, *Arming and Use of Force by Air Force Personnel*).

OPR:
MAJCOM: HQ AMC/SFX
Unit: Security police squadron (SF)
Instructor: Qualified SF combat arms instructor
Additional Information. Course will meet requirements outlined in AFI 36-2226 and includes use of force training from AFI 31-207.

G290—AMC Airport Qualification Program (AQP):

Purpose. Aircrews are required, for global operations, to familiarize themselves with worldwide destination airfields. Although this familiarization should be accomplished prior to every mission, the squadron commander will determine the need and associated currency requirement for logging G290 prior to departure. (See the applicable AFI 11-XXXX volumes for additional information.).

Description. Familiarization includes applicable review of: FLIP documents, AMC Summary of Airfield Suitability and Restrictions Report (ASRR), AQP video tapes (24 audiovisual documentaries of 168 select worldwide airports), DoD Foreign Clearance Guide, and notices to airmen. A review of the Theater Indoctrination Program is also included when applicable for deployment or as directed by unit commanders. The commander, operations officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-departure training.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Squadron or airfield management (reference material and video tapes)
Instructor: Self-paced

Additional Information. The squadron commander will determine the need and the associated currency requirement for accomplishing G290 prior to deployment. The commander, operations

officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-deployment training.

G300—Hydroplaning:

Purpose. To teach pilots how to react to hydroplaning situations on wet runways.

Description. Course describes how to recognize hydroplaning on wet runway surfaces and what actions to take for braking.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training aids and media: CBT

Additional Information. Course is available on CBT and is available for units as a unit directed training event if desired.

G310—Weather Avoidance Radar:
Purpose. To teach pilots and navigators how to tune radar for weather detection and avoidance.

Description. In-depth review on procedures and techniques for optimum tuning of the radar indicator for thunderstorm detection.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training aids and media: CBT

Additional Information. Course is available on CBT and is available for units as a unit directed training event if desired.

G320—INS/DNS:

Purpose. To teach pilots how to operate and understand the INS/DNS.

Description. In-depth review on procedures and techniques for operating the INS/DNS.

OPR:
MAJCOM: HQ AMC/DOTK
Unit: ATS contractor
Training aids and media: CBT

Additional Information. Course is available on CBT and is available for units as a unit directed training event if desired.

★**G801—Initial SOAR Training.** In-depth discussion of AFI 11-2KC-135, Volume 3, Addenda C, special operations AR procedures.

G802—Recurring SOAR Ground Training. Recurring special operations training to include communications, AR, and operations security procedures.

G803—NVG Training and Qualification. Instruction and qualification on the operation, care, and use of night vision goggles.

G804—Ground Communications Training. Instruction on all phases of SECURE VOICE communications used in SOAR. Includes keying, over the air rekeying, and operation of SECURE VOICE equipment.

★**G805—SOAR Missed Rendezvous Procedures**. Instruction on procedures in AFI 11-2KC-135, Volume 3, Addenda C, for emergency or missed rendezvous.

★**G990—AFRC/ANG Refresher Sim A**. First of two required sims for AFRC/ANG pilots. Log when complete in lieu of G252, G253, G254, G255, or G256.

★**G991—AFRC/ANG Refresher Sim B**. Second of two required sims for AFRC/ANG pilots. Log when second sim is complete in lieu of G252, G253, G254, G255, or G256.

★**H140—Anthrax (Initial Series).**

★**H141—Anthrax (Recurrent).**

A2.5. Life Support (LS) Training Event Descriptions.

★**LS01—Local Area Survival.**

Purpose. One time event conducted prior to the first flight at home station to familiarize aircrew members with local equipment and rescue procedures.

Description. Unit specific equipment (i.e., different variants of the same airframe; EC-135/KC-135) and local rescue procedures may be peculiar to home station or local training area. See AFI 11-301 and MAJCOM supplement (**For USAFE, reference USAFE 11-301**).

OPR:
MAJCOM: HQ AMC/DOT
Unit: Aircrew Life Support

Additional Information. Each unit is responsible for tailoring training to meet unit needs.

★**LS02—High Threat Combat Survival Training (CST)**:

Purpose. To provide aircrews with the information necessary to survive in any peacetime or wartime environment.

Description. Aircrew members demonstrate their ability to operate LSE, employ survival/evasion techniques, and rescue procedures under simulated combat conditions. Course satisfies self-aid and buddy care requirements of AFI 36-2238, *Self-Aid and Buddy Care Training*. See AFI 11-301 for course description and MAJCOM supplement **(For USAFE, reference USAFE 11-301).**

OPR:
MAJCOM: HQ AMC/DOT
Unit: Aircrew Life Support

Additional Information. Each unit is responsible for tailoring training to meet unit needs, IAW AFI 36-2209, *Survival and Code of Conduct Training*. CST "hands on" requirement may be met by classroom or field training at unit commander discretion based on unit mission. Course length will not exceed one training day. Units may schedule aircrew members to complete both CST and WST events in a single training day. **For PACAF, reference PACAF 11-301**.

★**LS03—Water Survival Training (WST)**:

Purpose. To provide aircrews the opportunity to demonstrate their ability to use weapon system specific flotation devices and LSE components available during an overwater emergency.

Description. Aircrew members will demonstrate the ability to employ water survival techniques and rescue procedures. Survivor needs using water-related equipment, accessories, and procedures will be stressed. An emphasis will be placed on the appropriate use of passenger support equipment and the proper care of passengers during a survival situation. See AFI 11-301 and MAJCOM supplement **(For USAFE, reference USAFE 11-301).**

OPR:
MAJCOM: HQ AMC/DOT
Unit: Aircrew Life Support

Additional Information. Each unit is responsible for tailoring training to meet unit needs. WST "hands on" requirement may be met by classroom or pool training at unit commander discretion based on unit mission. Course length will not exceed six hours. Units may schedule aircrew members to complete both WST and CST in a single training day.

★**LS04—Aircrew Chemical Defense Training (ACDT)**:

Purpose. Provide training to all aircrew members stationed in or subject to deployment or operations through a chemical threat area (CTA).

Description. Academic and equipment training in which the aircrew member demonstrates and performs donning, doffing, buddy dressing procedures using either the first generation ACDE or

Aircrew Eye/Respiratory Protection (AERP) equipment and Contamination Control procedures. Donning, doffing of equipment, and decontamination during exercises fulfills training requirement. Units may combine this training with G010 (Chemical-Biological Warfare Training), provided both aircrew and ground ensembles are fully covered (AFPD 11-3, AFI 11-301). See AFI 11-301 for course description and MAJCOM supplement **(For USAFE, reference USAFE 11-301).**

   OPR:
   MAJCOM: HQ AMC/DOT
   Unit: Aircrew Life Support

★**LS05—Egress Training with ACDE**:

   Purpose. Provide aircrews with the training required to safely egress assigned aircraft while wearing ACDE.

   Description. Each aircrew member must demonstrate the ability to safely egress while wearing ACDE. Training must be accomplished at least once in each assigned aircraft. Accomplishing this training also satisfies the requirements in LS08. See AFI 11-301 for course description.

   OPR:
   MAJCOM: HQ AMC/DOT
   Unit: Aircrew Life Support

LS06—Life Support Equipment (LSE):

   Purpose. Provides training on the use of available life support equipment and the principles, procedures, and techniques needed to permit survival in varying climatic conditions and environmental regions based on the unit mission.

   Description. The class is conducted as part of the training for initial qualification students. LSE for continuation training will be taught as part of WST, CST and Egress. See AFI 11-301 and the MAJCOM supplement for course description.

   OPR:
   MAJCOM: HQ AMC/DOT
   Unit: Aircrew Life Support

LS08—Egress Training:

   Purpose. To ensure all crew members can explain ground and inflight egress procedures, are able to identify and document equipment discrepancies, can perform required egress procedures, and are able to identify, locate and utilize appropriate emergency equipment. Also, to ensure all crew members understand the operation of fire extinguishers located in the aircraft and fire bottles positioned outside the aircraft. The course should also address egress difficulties

associated with the Aircrew Chemical Defense Ensemble (ACDE) and emergency contamination control when combined with LS05.

Description. Training will include discussion of primary and secondary air and ground egress exit points. If unit elects to conduct training at the aircraft, practice "hands-on" egress scenarios to enforce the importance of aircrew coordination actions required for emergency situations. See AFPD 11-3, *Life Support*, AFI 11-301, *Life Support Program*, AFOSH Standard 127-100 and applicable MAJCOM guidance.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Squadron
Curriculum development: Unit
Instructor: Certified aircrew and life support instructors will provide egress training to all aircrew and operational support crew members. Fire department personnel will provide fire extinguisher training.

Training aids:
CBT (for continuation training)
Fire extinguisher and fire bottle
Aircrew Eye/Respiratory Protection (AERP) equipment (if unit-equipped)

Additional Information. Accomplish initial egress training in the aircraft. CBT may be used to accomplish continuation training (with the exception of the fire extinguisher and fire bottle training) Actual performance of ground emergency egress procedures at the aircraft is desired. Scheduling will coordinate with maintenance to ensure aircraft availability for training. An appropriate maintenance stand and safety equipment must be immediately below windows and hatches being used. A safety observer or instructor must be positioned on the maintenance stand to assist as necessary. Contact the fire department for extinguisher training.

LS10—Hanging Harness Training (HHT):

Purpose. To ensure aircrew members can perform critical post egress and parachute malfunction procedures while suspended under the parachute canopy.

Description. Aircrew members demonstrate the ability to modify, steer, and land parachutes. This training is required for all aircrew members who carry parachutes aboard their aircraft. Hanging harness may be demonstrated in lieu of suspending each aircrew member as determined by the unit commander. See AFI 11-301 and MAJCOM supplement for course description.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Aircrew Life Support

LS12—Hanging Harness Training with ACDE. Dual log with LS10.

Purpose.   To ensure aircrew members can perform critical post egress and parachute malfunction procedures while suspended under the parachute canopy.

Description.   Aircrew members demonstrate the ability to modify, steer, and land parachutes while wearing ACDE. Hanging harness may be demonstrated in lieu of suspending each aircrew member as determined by the unit commander. This training is required for all aircrew members who carry parachutes aboard their aircraft. This is a one-time event.

OPR:
MAJCOM: HQ AMC/DOT
Unit: Aircrew Life Support

A2.6. Mission-Specific ("M") Training Events:

M001—Sortie. Log one M001 for each AFTO 781 sortie flown.

★**M005—Dual Qual Sortie.**   Use this event to track sorties in the secondary aircraft.   The secondary aircraft is the aircraft less frequently flown. To take credit for this event, as a minimum, the following events must be accomplished on each sortie:

Pilots: Preflight (P361), Takeoff (P020), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified pilots only), Instrument Approach (P070), and Postflight (P368).

Navigators: Preflight (P361), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified navigators only), and Postflight (P368).

Boom Operators: Preflight (P361) and Postflight (P368)

★**M006—Pacer CRAG Block 25 Sortie.**   To take credit for this event, as a minimum, the following events must be accomplished:

Pilots: Preflight (P361), Takeoff (P020), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified pilots only), Non-precision Approach (P110), and Postflight (P368).

Navigators: Preflight (P361), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified navigators only), and Postflight (P368).

Boom Operators: Preflight (P361) and Postflight (P368).

★**M007—Pacer CRAG Block 30 Sortie.**   To take credit for this event, as a minimum, the following events must be accomplished:

Pilots: Preflight (P361), Takeoff (P020), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified pilots only), Non-precision Approach (P110), and Postflight (P368).

Navigators: Preflight (P361), Tanker Rendezvous (N020), Receiver Rendezvous (N130) (receiver qualified navigators only), and Postflight (P368).

Boom Operators: Preflight (P361) and Postflight (P368).

M010—Proficiency Sortie. The following requirements are listed by crew position:

Pilots—Must be accomplished with an IP (formal school instructors are exempt from the IP requirement). IPs should accomplish their M010 requirements with another IP on board the aircraft. Once the exercise commences, it should not be disrupted for any other type of training. A minimum of 1.5 hours *(or as specified in MAJCOM supplement)* should be scheduled for this event. As a minimum, a pilot proficiency sortie will consist of the following:

    Review of boldface emergency procedures
    Three instrument approaches
    Missed approach
    VFR traffic pattern (weather permitting)

In addition, the following should be accomplished when available and applicable:

    Holding pattern or procedure turn (to include entry)
    Circling approach
    Simulated engine-out landing (if applicable to aircraft type and weather permitting, not applicable to copilots)
    Simulated engine-out go-around or missed approach (if applicable to aircraft type and weather permitting, not applicable to copilots)
    Partial flap landing (if applicable)
    Engine Failure Take-Off Continued (AFRC/ANG E/D model qualified pilots only)

If circumstances prevent completion on one sortie, credit may be taken after a second IP-supervised sortie, provided the combined activity fulfills the intent of this paragraph. Instructors should tailor each M010 to the individual pilot's needs. Particular emphasis should be placed on simulated systems malfunctions, simulated-engine out operations and instrument procedures.

Communication system operators (CSO)—May credit a proficiency sortie when they complete predeparture activities applicable to the mission being flown and accomplish all normal tasks through post-mission debriefing.

Boom operators—Must accomplish preflight through engine shutdown checklist items and an AR, channel sortie, or cargo load operations. Instructor and examiner boom operators may credit proficiency sortie (M010) while instructing or evaluating.

Inflight passenger service specialists—Must accomplish duties associated with their crew position.

M020—Unit Specific Training Sortie. Unit defined sortie to accomplish mission specific training events. The following is a suggested listing of events that can be used on a M020:

   Any individual training event (approaches, landings, ARs)
   Exercise training (RED FLAG, MAPLE FLAG)
   US Navy or Marine Corps drogue training
   Practice mobility training
   Night formations
   Large formations
   Night receivers and refueling
   Special mission tasking
   Special operations tasking
   Tactical navigation training
   Composite exercises

M025—Supplemental Training Sortie. Training sortie that provides transportation of personnel or cargo aboard -135 aircraft and results in the expenditure of additional flying hours through modification of a scheduled training sortie. All supplemental training sorties must be coordinated and approved by the OG Commander.

M030—Overseas Sortie. Sortie that includes take-off or landing outside the 48 conterminous states of the United States. Primary crew and crewmembers performing instructor or evaluator duty log accomplishment of M030. This event does not apply to units that are permanently based overseas.

M200—Precrew Training Sortie (CCTS Only). Training sortie designated to permit student to observe duties and responsibilities. These sorties should be accomplished before starting regular aircrew flying training phase.

M250—Silent Launch Procedures. Procedures required to generate and launch aircraft in a radio silent environment.   Units should develop local procedures for single ship and formation departures. For training purposes, silent launch procedures will terminate with the initial radio call to departure control when airborne.

★**A2.7. Navigation ("N") Events**:

N005—Mag Course Departure (CFIC/Pre-CFIC Only). Departure directed by the navigator using the radar and mag course procedures. (*NOTE*: For Pre-CFIC training, the instructor navigator will brief procedures on the ground to the instructor navigator candidate and demonstrate proper radar configuration during departure. The instructor navigator and navigator will monitor the pilots departure but not direct it.)

N010—Tanker Rendezvous. Any rendezvous accomplished using the procedures in the AR TO. Includes point parallel, en route, GCI/AWACs directed, and alternate rendezvous methods. AETC instructors and evaluators may take credit for any rendezvous instructed or evaluated during IQT and RQT training. Pilots may dual log this event with the navigator.

N011—Rendezvous—Emission Option 1 (Unrestricted Communications and Emissions). Procedures primarily used for CCTS training.

N012—Rendezvous—Emission Option 2 (Limited Communications). Normal procedure for rendezvous and AR. See AR TO for authorized communications and emissions.

N013—Rendezvous—Emission Option 3 (Radio Silent). See AR TO for complete description and requirements. The use of other emitters is authorized unless prohibited by supported operations plans.

N014—Rendezvous—Emission Option 4 (No Emissions). See AR TO for complete description and requirements. No emitter will be used unless specifically authorized by the air tasking order (ATO), rules of engagement, operations plans, safe passage procedures, or other mission directives. This includes radios, doppler, radio navigation transmitters, radar, radio altimeters, IFF, exterior lighting, etc. This option will not be practiced during peacetime operations unless specifically tasked by NAF or higher headquarters due to the FAA identification requirement.

N015—Tanker Alternate Rendezvous. Any tanker rendezvous not utilizing the INS/DNS and TACAN as the primary means. Dual-log with N010.

N016—Tanker Rendezvous Overrun Procedures.

N020—Tanker En Route Rendezvous. Dual-log with N010. Pilots may dual log this event with the navigator.

N030—Tanker Point Parallel Rendezvous. Dual-log with N010. Pilots may dual log this event with the navigator.

N040—Tanker Anchor Rendezvous and AR. Includes any rendezvous and AR in an anchor area. Can be tanker, receiver, or GCI and AWACs directed. Dual-log with N010 and R060. Pilots may dual log this event with the navigator.

N050—Navigation Leg. Any navigation leg of at least 1 hour duration. AETC instructors and evaluators may take credit for any navigation leg instructed or evaluated during IQT or RQT.

N055—Category I/Overwater Navigation Leg. See AFI 11-2KC-135, Volume 3, Chapter 11, for description. Dual-log with N050.

N060—Mission Navigation Leg. See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

N065—Tactical Navigation Leg. See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

N070—Degraded Systems Navigation Leg. See AFI 11-2KC-135, Volume 3, Chapter 11 for description. Dual-log with N050.

N080—Grid Entry and Exit Exercise. Use grid entry and exit checklist to configure compass systems and DNS (if applicable) for grid navigation. May be completed in conjunction with any navigation leg or during general navigation.

N090—Control Time/Position Exercise. Establish ETA to a control point at least 30 minutes in duration and meet control time +/- 30 seconds. May be flown in conjunction with any navigation leg or during general navigation.

N100—INS Airborne Alignment. Simulates INS operation under SIOP launch conditions. INS should be left in STBY until after takeoff and air aligned using flight manual procedures. However, for continuation training, air alignment may be initiated any time inflight.

★**N110—Communication Procedures**. Aircrew members will copy at least one emergency action message using HF or UHF radio (only the first six elements of a UHF message are necessary). Aircrew members will verify message currency with radio not used to obtain original message. Contact a global command and control station using HF radio. Aircrew members will also accomplish launch and authentication check. A log will be maintained of all communications.

N120—Airborne Radar-Directed Approach. Approach directed by the navigator using airborne radar as the primary means.

N130—Receiver Rendezvous. Accomplish in accordance with the AR TO. Navigators must direct their aircraft to 1 NM in trail to receive credit.

N131—Receiver En Route Rendezvous. Dual-log with N130.

N132—Receiver Point Parallel Rendezvous. Dual-log with N130.

N135—Receiver Alternate Rendezvous. Dual-log with N130.

N136—Receiver Rendezvous Overrun Procedures.

N140—Celestial Observation. Minimum of 3 celestial observations per event. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial observation may be logged per sortie.

N150—Celestial Position. Locate, shoot and plot celestial position in-flight. At least 3 lines of position and a heading check are required. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial position may be logged per sortie. Sextant observations may be accomplished by the navigator or boom operator.

N160—General Navigation. Comply with general navigation procedures in AFI 11-2KC-135, Volume 3, Chapter 11. Includes directing the aircraft, maintaining inflight log and chart

information, fixing and maintaining track, establishing reliable ETAs, and meeting control times. For navigator IQT, sufficient information must be recorded on inflight log to accurately reconstruct the mission, including wind.

★**N160A—Flight Management System (FMS) Navigation.** Comply with FMS navigation procedures in AFI-112KC-135, Volume 3. Includes directing the aircraft, monitoring navigation systems for accuracy, maintaining track, establishing reliable ETAs, and meeting control times.

N165—Fixing. Obtain and plot precision fixes (VOR, TACAN, or radar). Individual must understand navigation corridor scoring procedures and responsibilities.

N170—INS/DNS TACAN Aided Operation.

N175—INS/DNS Radar Present Position Update.

N176—INS/DNS Manual Present Position Update.

N180—Target Timing Wind.

A2.8. **Crew and Individual Proficiency ("P") Events**:

P006—Airwork. Block of time scheduled and devoted to learning and maintaining basic flying skills. Objective of this event is to demonstrate or reinforce understanding of aircraft flight characteristics. Recommend accomplishment in an airwork area with reserved altitude blocks.

NOTE: The following is a list of events which may be accomplished:

Steep Turns. Target bank angle should not exceed 45 degrees of bank. Target airspeed is 250 KIAS.

Lateral Control Demonstration.

Trim Demonstration.

Approved inflight tactics events.

Additional items such as vertical "S."

★**P007—Approach to Initial Buffet and Recovery**. ATD Only. **Not required for USAFE. Conduct ground prebrief and accomplish this event during next continuation training simulator visit.**

P010—Takeoff—Initial. Includes all activity from initiation of the takeoff checklist up to and including establishment of climb configuration and airspeed. The takeoff following a touch-and-go is not creditable. EXCEPTION: Senior pilots (colonels and above) who require inflight

supervision and instructor pilots may log a P010 after accomplishing (pilot flying) an initial takeoff or touch-and-go. Dual log with P020.

P011—Takeoff—Night.

P012—Takeoff—Gyro Mode. Takeoff using max mode climb procedures without assistance of RGA command bars.

P015—Instrument Departure. That portion of flight after establishing climb configuration and airspeed through SID routing or first en route point on the radar departure.

P018—Copilot Takeoff Climb Duties. Perform copilot takeoff duties, to include setting takeoff power and monitoring aircraft performance and acceleration through cleanup altitude. May be accomplished in ATD.

P020—Takeoff. Initial takeoff or takeoff following touch and go landing.

P026—Takeoff and Climb Procedures.

P027—EWO Departure. 330 KIAS climb airspeed will be established after flap retraction and maintained until level off or climb Mach is attained. Pilots may receive credit when occupying either pilot or copilot position.

P030—Max Mode T/O, 30 Flap. Dual log with P020.

P035—PMC Off Takeoff. Takeoff with simulated outboard engine PMC inoperative. PMC switch for the engine will be set to off and TO PMC-off procedures accomplished. Accomplish only in the ATD.

P040—Simulated Engine Failure, Takeoff Continued. Authorized for IPs, ACs, and experienced copilots. Requires direct IP supervision; may dual log with P020, P190, and P192.

P045—Simulated Engine Failure on the Runway (CFIC Only).

★**P053—Spiral Up Departure**. See AFI 11-2KC-135, Volume 3 for procedures. N/A for units permanently based overseas.

★P055. DELETED.

★**P061—VFR Overhead**. See AFI 11-2KC-135, Volume 3 for procedures. N/A for units permanently based overseas.

★**P064—Random Steep Approach**. See AFI 11-2KC-135, Volume 3 for procedures. N/A for units permanently based overseas.

★P065—Curvilinear Approach. See AFI 11-2KC-135, Volume 3 for procedures. N/A for units permanently based overseas.

★P066—Low Altitude High Speed Departure. See AFI 11-2KC-135, Volume 3 for procedures. N/A for units permanently based overseas. Crews should accomplish this maneuver in the simulator prior to flight training if feasible.

P070—Instrument Approach.

P071—Holding.

P072—Penetration (Published).

P073—En Route Descent.

P080—Instrument Approach (Auto or Coupled). Approach flown with the autopilot coupled to the ILS.

P100—Precision Approach.

P101—ILS Approach. Dual log with P100 and P070.

P102—ILS (Gyro Mode). Dual log with P100 and P070.

P103—PAR Approach. Dual log with P100 and P070.

P110—Non-Precision Approach.

★P111—VOR/TACAN/FMS Procedures. Includes fix-to-fix navigation, course interception, and general radio aid navigation. This event does not include an instrument approach.

★P112—VOR/TACAN/Localizer/FMS Approach. Dual log with P110 and P070.

P113—ASR Approach. Dual log with P110 and P070.

P115—Backcourse LOC. Dual log with P110 and P070.

P130—Circling. Dual-log with type approach flown.

P140—Visual Traffic Pattern. Maneuver flown to position aircraft for landing from the visual traffic pattern.

P160—Missed Approach.

P170—Approach and Go-Around, Simulated Engine-Out. Accomplish under IP supervision or qualified AC.

P171—Approach and Go-Around, Simulated Engine-Out, Power Rudder Off. Accomplish under IP supervision.

P172—Approach and Go-Around, Simulated Engine-Out, FCAS Off. (Simulated loss of an outboard engine with loss of SYD/EFAS.) Accomplish with rudder power on to low approach only.

P180—Approach and Landing, Simulated Engine-Out. Accomplish under IP supervision or qualified AC.

P190—Landing.

P191—Landing, Full Stop, Reverse Thrust. Landing rollout will be made using reverse thrust on symmetric engines. For qualification training, KC-135E pilots should accomplish at least one event at a minimum gross weight of 175,000 pounds. Gross weight requirements do not apply to continuation training events. Loss of currency does not result in a loss of mission ready status.

P192—Night Landing. Dual log with P190.

P193—Landing, 50-Degree Flaps. Dual log with P190.

P194—Landing, 30-Degree Flaps. Dual log with P190.

P195—Landing, Simulated Engine-Out, 4 Engine Takeoff. Direct IP supervision.

P196—Landing, Full-Stop.

P200—Touch-and-Go Landing. Currency requirement for AC. Loss of currency does not result in a loss of mission ready status. Dual log with P020, P190, and P192 as applicable.

P211—Simulated Two Engine Landing (CFIC Only).

P212—No Airspeed/No AOA Approach (CFIC Only).

P215—Landing Attitude Demonstration. Dual-log with P190 and P200. Direct IP supervision.

P216—Right Seat Braking Exercise (CCTS/CFIC Only). Exercise teaching braking from the right seat. Event may be accomplished as a taxi exercise on the runway or on a full-stop landing. Maximum gross weight is 150,000 pounds and a dry runway is required.

P240—Landing Gear Alternate Extension.

P250—Main Flap Manual Operation (Main Flap Alternate Operation - E-model). May be accomplished on the ground (if applicable). See restrictions in AFI 11-2KC-135, Vol 3.

P260—HAVE QUICK Radio Procedures. Training consists of properly configuring the radio for HAVE QUICK operation and making at least one transmission and reception using HAVE QUICK mode of operation with any source. When practical, rendezvous and refueling should be accomplished utilizing the HAVE QUICK mode of operation. The TOD should be updated from a ground station master clock when possible.

P270—SECURE RADIO Operation. Training consists of properly loading SECURE VOICE code and making at least one transmission and reception using SECURE VOICE with like equipped aircraft.

P271—Authentication Procedures. Training consists of demonstrating proper challenge and reply authentication procedures using the TRIAD authenticator. Units will determine how best to accomplish the training (i.e., authenticate a transmission with command post, between aircraft in formation, etc.).

P272—KY 58 Radio Operation. Trainee must demonstrate keying KIK-13, loading KY-58, completing secure radio transmission with another aircraft, and proper zeroizing of KY-58 and KIK-13.

P280—Aircrew Chemical Defense Qualification Training (ACDTQT). An exercise emphasizing hands-on training, dressed out in partial chemical defense (CD) ensemble. Do not accomplish in conjunction with a formation take-off or a night formation departure. The purpose of the exercise is to enable crewmembers to become aware of their limitations while wearing the equipment. Complications of heat exhaustion, fatigue, hyperventilation, limited dexterity, and hampered communication can all be experienced during the exercise. Observers must closely monitor crewmember actions during the exercise. If a crewmember experiences difficulties such as excessive thermal stress, hyperventilation, headaches, etc., and either the observer or crewmember believes it is unsafe to continue, the equipment will be immediately removed.

The following aircrew CD items will be used:

    Flying helmet (if applicable)
    MBU-19/P hood and mask assembly
    Filter pack with filters and CQU-7/P blower assembly with filter canisters and batteries
    MXU-835 intercom assembly
    Filter pack suspension straps
    Glove set (cotton, butyl, Nomex$^{®}$)

ACDTQT should be accomplished in a simulator with visual displays, provided a simulator exists or is available. If accomplished in a simulator, ATS instructors will observe the exercise, no other supervision is required, and no restrictions apply on who and how many crewmembers may wear the gear.

If performed in the aircraft, only one pilot will be dressed out at any time. Navigators and boom operators will not dress out simultaneously.

The aircraft commander will be supervised by an instructor pilot occupying the copilot seat. Copilot will be supervised by an instructor pilot or experienced aircraft commander (determined by the squadron commander) in the pilot seat. A safety observer crewmember will occupy the jump seat. Pilots will don the gear and accomplish at least one take-off, approach, and landing, and complete all crew position checklists associated with approach and landing.

Navigators will be supervised by another navigator (boom operator may supervise KC-135 navigators) and wear the gear for a minimum of 30 minutes while performing navigator duties. Boom operators, supervised by crewmembers of like specialty or a navigator, will wear the gear during take-off, approach, and landing.

Prior to being scheduled for this event, each aircrew member must have completed LS04.

P290—Alert Start Procedures. The initial accomplishment must be in an aircraft that has been cocked to simulate alert status, i.e., windshield cover, pitot covers, engine plugs, engine cartridges, etc., installed, if appropriate. Crew must respond via normal alert notification (which requires engine start) or from a wing tip position and accomplish alert start and taxi checklist items while in the chocks. Pilots and copilots must receive a thorough briefing by a unit instructor pilot on APU or cartridge start operation prior to performing an alert start. Subsequent requirements may be accomplished in an ATD or the aircraft.

P300—Cargo Loading. Accomplishment of either floor loading or palletized cargo loading during a deployment, operational or training mission, or exercise. A locally accomplished static load may be used for P300 credit. BOs must complete G182, G183, or G184 annually to be authorized to complete this event unsupervised. The actual accomplishment with an instructor is creditable toward G183 or G184, as applicable.

P310—Instructor and Evaluator Duties. Creditable when instruction or AFI 11-2KC-135, Volume 2 evaluation is performed inflight or in the training device. Instructors may receive credit while instructing unlike specialties during initial and mission qualification and instructor upgrade.

P311—Flight With An Instructor.

P312—Instructor Techniques (CFIC Only).

P335—Prep for Contact

P340—Briefing and Control of Passengers.

P345—Inflight Adjustment and Security of Load.

P355—Trouble Shooting AR Equipment Malfunctions.

P360—Mission Planning and Briefing.

★**P360A—AFMSS Mission Planning.**

P361—Preflight.

P362—Pretakeoff.

P363—Climb.

P364—Cruise.

P365—Autopilot Off Cruise.

P366—Checklist Procedures and Use.

P367—Crew Coordination.

P368—Postflight.

★**P369—Aircraft Equipment Operation.** Demonstrated proficiency in operating the following applicable equipment:

Ground start and taxi procedures (P, CP)	Hydraulic system (P, CP)	Fuel panel mgt (P, CP)
Pneumatic system (P, CP)	APU (P, CP, N, BO)	AR system (BO)
Radar and navigation systems (P, CP, N)	Comm radios (P, CP, N, BO)	MPRS (P, CP, BO)

P380—Spoiler and Lateral Control Demonstration. Demonstration of roll rates and aileron forces required for different spoiler settings and the reduced lateral control effectiveness after spoiler or hydraulic malfunction. Must be accomplished above 10,000 feet AGL.

P382—Trim Demonstration. IP supervised.

P383—Simulated Jammed Stabilizer Demonstration. Direct IP supervision.

A2.9. Examinations, Qualifications and Certifications ("Q") Events:

★**Q001—Open-Book Qualification Examination**. Administered and graded according to AFI 11-2KC-135, Volume 2, as supplemented. Must be accomplished as part of all qualification training.

Q002—Closed-Book Qualification Examination. Administered and graded according to AFI 11-2KC-135, Volume 2, as supplemented. Must be accomplished as part of all qualification training.

Q005—ATD Evaluation. Administered in ATD (OFT, CTD, BOPPT), according to AFI 11-2KC-135, Volume 2 as supplemented. Completion of AC Upgrade simulator KPTD8 or CFIC simulator #4 are creditable toward Q005.

Q010—SIOP Certification. Preparation for SIOP certification and SIOP certification. Certification by wing or operation group commander or designated representative that the individual can perform the SIOP mission.

Q011—Formation Lead Certification Program. Designed to certify ACs as formation lead.

Q014—Difference Certification. Documents all training required to qualify individuals in a different mission-series aircraft or different tactic requiring certification is complete. Q014 is not required when AA01 difference evaluation is accomplished.

Q015—Special Missions and Operations Certification. Certifies completion of all training required to air refuel special operations aircraft. Commanders will determine the requirement for this event and missions to be certified using this event.

Q016—Conventional/Mobility Certification. Wing or group commander (or designated representative) certification that a crewmember is prepared to accomplish the unit's conventional or mobility mission as specified in the unit's DOC statement. Commanders will determine the requirement for this event.

Q017—LAAR Certification.

★**Q021-Q033—AR Qualifications.** BOs—Q021, Q022, Q023, Q028, Q029, Q033. ACs—Q028 and Q033. BOs initially qualified in accordance with AFI 11-2KC-135, Volume 2 are qualified to refuel any receiver not listed in the following categories:

Q021—BRAVO Probe Equipped Receivers. Program # 1918 may be used if probe receivers are not available. CCTS may be completed in BOPTT. In-unit qualification must complete Q022 and Q023 before starting Q021.

Q022—CHARLIE Receptacle Equipped Fighters, Day. Complete program #1919 prior to flight.

Q023—CHARLIE Receptacle Equipped Fighters, Night. Complete program #1919 prior to flight.

★Q026. DELETED.

★**Q028—GOLF Day Heavy Receivers (KC-10, C-5, C-17, or B-2)**. Accomplishment with one receiver aircraft qualifies pilot and boom operator for all four.

★**Q029—GOLF Night Heavy Receivers (KC-10, C-5, C-17, or B-2)**. Accomplishment with one receiver aircraft qualifies boom operator for all four. (N/A for pilots).

★Q030. DELETED.

★Q031. DELETED.

★Q032. DELETED.

★**Q033—Multi Point Refueling System (MPRS)**. Requires MPRS certification in accordance with **Table 2.5.** for pilot and boom operator qualification. Boom operators must complete Q022 and Q023 before starting Q033.

NOTES:
1. All category qualification training requires supervision by an instructor qualified in that category.
2. Prior to attempting initial contact, the trainee must monitor radio communication procedures and observe an instructor demonstrated contact.
3. The squadron will review CCTS records to determine category qualifications obtained at CCTS and ensure entry in AFORMS System.

Q050—Aircraft Commander Touch and Go Landing Certification. Designed to certify ACs by the SQ/CC to allow the ACs to accomplish unsupervised touch and go landings.

Q051—Supervision of Copilot Touch and Go Landings and Receiver Air Refueling. Designed to certify ACs by the SQ/CC to perform unsupervised touch and go landings and supervise unit copilot's touch and go landings and receiver air refueling.

Q060—EMCON 3 Certification. Requires SQ/CC certification for crewmembers to accomplish EMCON 3 procedures during formation, rendezvous, and AR on both operational and training sorties.

Q070—EMCON 4 Certification. Requires SQ/CC certification for crewmembers to accomplish EMCON 4 procedures during formation, rendezvous, and AR on both operational and training sorties.

★Q081. DELETED.

Q091—PACER CRAG Qualification. Qualification for pilots, navigators, and boom operators to fly a KC-135 with the PACER CRAG flight deck modification.

Q160—Instrument Refresher Course Examination.

Q180—Cargo Qualification (Active Duty)/Certification (AFRC/ANG). Demonstrate and certify on a 17-month recurring basis, cargo loading procedures. The cargo check/certification is required to be completed by each boom operator on a recurring basis. Initial qualification or the latest cargo certification establishes a certification reference month. The recurring certification will be accomplished during the 6-month eligibility period that includes the currency reference month and the 5 preceding months. The certification will consist of actual cargo loading observed and certified by an instructor on a one-on-one basis. A cargo load is defined as floor loaded or palletized cargo (e.g., mobility bins, AGE equipment, etc.). Passenger baggage bins do not constitute a cargo load. The certification may be administered under static or flight conditions. Dual log with P300 in conjunction with a recurring cargo certification. Document certification on

AF Form 1381, **USAF Certification of Aircrew Training**, and place in the individual's FEF. Individuals exceeding the 17-month certification period, will be unable to perform cargo loading operations unsupervised. (This does not include passenger-only missions). Senior OG/OGV boom operators may receive their cargo certification from NAF if approved by the OG/CC. This certification should be accomplished in conjunction with the pyramid qualification evaluation.

A2.10. Air Refueling ("R") Training Events:

R010—Receiver AR:

Qualification Training. Consists of practice in AR including closure and contacts. The instructor will demonstrate all limits and manual boom latching. The student must be able to establish contact under simulated conditions of radio silence, pilot director lights out, and tanker auto pilot off. Students must be declared safe in day activity by an instructor prior to advancing to night activity. The first night mission should include training during twilight and extend into the hours of darkness. During the hours of darkness, conduct practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without a disconnect.

Continuation Training. Pilots may credit one R010 per sortie by accomplishing a closure from the pre-contact position and maintaining a 5 minute toggles-engaged contact. Instructors and evaluators should accomplish at least two receiver ARs while occupying the right seat.

NOTE: Dual-seat qualified (non-instructor) ACs must be under direct instructor pilot supervision when attempting contacts from the right seat. Copilots must be under direct instructor supervision when attempting contacts from either seat.

R011—Receiver AR, Indoctrination. Ability to maintain pre-contact position, recognize any unsafe condition, and safely separate one aircraft from the tanker.

R012—Receiver AR (Day).

R020—Receiver AR (Night).

R030—Receiver AR (Heavyweight). Requires minimum onload of 25,000 pounds and end refueling gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized. For qualification training, the pilot must complete a total of 15 minutes toggles-engaged time.

R035—Receiver AR (Heavy Onload). Requires minimum onload of 50,000 pounds of fuel. For qualification training, the pilot must accomplish a total of 15 minutes toggle-engaged time.

R040—Receiver AR Breakaway and Emergency Separation. Initiated with the receiver in the AR envelope. Pilots must demonstrate proficiency in executing the breakaway. For copilots, includes checklist duties only.

R050—Receiver AR, Tanker Auto Pilot-Off. The tanker autopilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

R060—Tanker AR. Credit only one R060 for each receiver cell/ARCT regardless of the number of aircraft. Credit may be awarded if AR contact can be established. 10-minute toggles engaged time is desired. Pilots may receive credit when occupying either pilot or copilot position. Additional pilots and BOs may also log an R060 provided they actually accomplish a refueling in their primary position.

R061—Tanker AR, Indoctrination.

R064—Pressure Disconnect. (CFIC only)

R065—Receiver Lateral Stability. (CFIC only)

R067—Simulator Receiver Engine-Out (CFIC only)

R070—Tanker AR Breakaway and Emergency Separation. Breakaway should be initiated with the receiver in the AR envelope. Pilots and BOs must demonstrate proficiency in executing breakaway. Copilots must demonstrate proficiency in copilot procedures while the pilot executes the breakaway. Navigators must demonstrate proficiency in navigator duties during a breakaway.

R071—Receiver Only Separation. (CFIC only)

R072—Tanker Only Separation. (CFIC only)

R080—Tanker AR Autopilot Off. All axes of the tanker auto pilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

R100—Tanker AR, Heavy Receiver. For this event, -135, -130, C-141, E-3, E-4, E-6, C- 5, C-17, B-52, B-1, B-2, and KC-10 are considered heavy. Dual-log with R060.

R120—Contacts. For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts. Includes the total number of contacts accomplished.

R125—Day Contacts. For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts.

R130—Night Contacts. Loss of night currency will not cause loss of MR status for day operations. Dual-log with R120.

R135—Preparation for Contact Procedures.

★**R140—Tanker Manual Contact**. Prior to attempting, students must demonstrate knowledge of tanker manual operational equipment and procedures.

R150—Fighter Contact. Log the actual number of contacts accomplished. Boom operators must obtain a contact with the fighter. Additional boom operators may also log a R150 if they accomplish a contact. Formal school, AMWC, and NAF/DOV may credit one R150 accomplished in the BOPTT between actual contacts in the aircraft. Currency not required for alert duty. BOs may log R150 for B-1 refueling, provided he or she is Q022 qualified.

R155—Probe and Drogue Contact.

R160—Radio Silent Breakaway. Event is to be accomplished using radio silent procedures. No radio call will be made during accomplishment of breakaway unless it is needed due to actual emergency or system malfunction. This event may take place with the receiver in either the contact or precontact position. For the event to occur from the contact position, prior coordination must take place among the boom operator, tanker pilot and receiver pilot. As a minimum, the time of occurrence must be coordinated. Should this event be scheduled as part of a radio silent AR, coordination can be done any time prior to the flight. This event may also be accomplished during an AR that does not involve radio silent procedures.

R165—Radio Silent AR. BOs must demonstrate their ability to air refuel radio silent to an instructor BO during an actual AR. Any type receiver may be used for this training. The individual's training records must show qualification in radio silent AR prior to achieving mission qualification status, or participating in EMCON operations.

R170—Tanker Heavyweight Offload. Requires a minimum offload of 50,000 pounds and a start AR gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized.

R180—Radio Silent Visual Signals.

R190—Tanker Drogue AR.

R195—Tanker Wing Pod AR.

R210—Low Altitude Air Refueling. AR below 10,000 feet AGL or 12,000 feet MSL. Crew must complete LAAR training and be certified by the unit commander prior to unsupervised flight. Dual-log with R060. Refer to AFI 11-2KC-135, Volume 3, Chapter 17, for additional information.

R220—Manual Boom Latching.

★**R225—Reverse AR**. Practice of this procedure by KC-135s in the tanker role is restricted to CCTS/CFIC only. KC-135R/Ts may practice procedure under direct IP supervision on aircraft equipped with the Boeing ARR system.

R230—Emergency Boom Hoist.

R400—Tanker Power Management. (CFIC only)

R410—Aerodynamic Effects of Boom Position. (CFIC only)

R420—Simulated Loss of Tanker Engine During AR. (CFIC only)

R440—Aerodynamic Effects of Various Closures. (CFIC only)

A2.11. Special Operations ("S") Training Event:

NOTE: These events are required for SOAR qualified aircrews per the specific continuation training table. Failure to complete the continuation training in the required training period does not result in NMR status. The crew member can still deploy forward in the same manner a non-SOAR crew member would. However, place the crew member in supervised status for the SOAR event (individual must fly with an instructor of like specialty on missions requiring that event) until required training is complete.

★S003. DELETED.

★S004. DELETED.

★**S036—SOAR Rendezvous.** Special operations rendezvous utilizing enroute overtaking rendezvous procedures found in AFI 11-2KC-135V3, Addenda C, accomplished by aircrews certified in these procedures.

S101—Inflight Communications Training. Keying, over the air rekeying and operating procedures using SECURE VOICE equipment. S101 is creditable on exercise and operational missions in which secure communications equipment is installed and keyed, with no additional radio calls required.

S200—NVG Operation. Inflight operation of NVGs, including preflight check.

A2.12. Air Force Specified ("XX") Training Events:

AA01—Qualification Check.

AA02—Qualification Check, Simulator.

AA11—Instrument Check.

AA12—Instrument Check, Simulator.

AA21—Combined Qualification and Instrument Check.

AA22—Combined Qualification and Instrument Check, Simulator.

PP01—Flight Physical.

★**PP11—Physiological Training** (AFI 11-403, *Aerospace Physiological Training*). Currency expires 5 years after the last day of the month in which accomplished (example: if training was accomplished 19 Oct 1998, training is due not later than 31 Oct 2003). Rated officers who have more than 20 years of flying service and have completed two or more refresher physiology courses with chamber flights receive refresher academics every 5 years. However, training in an altitude chamber is the aircrew member's option. See complete guidance in AFI 11-403.

RR01—Flight Records Review. Governed by AFI 11-401 *Flight Management.*

★**A2.13. Additional Event Identifiers.** These identifiers will be used if units choose to track the associated events and items in AFORMS:

E010—Standards of Conduct Briefing.

E020—AMC Escort Training.

E030—Passport.

E040—Base Populace Briefing.

E050—Newcomer Substance Abuse Awareness Briefing.

E060—Newcomers Social Actions Briefing.

E070—Protection of the President.

E080—Report Counter Human Resources Intelligence Threat Briefing.

E090—Hostile Human Intelligence Threat Briefing.

E100—Security and Awareness Training.

C010—CWD Driver Operations.

C020—Mass Casualty Exercise.

C030—Mobility Briefing.

C040—Mobility Folder Review.

C050—Unit Disaster Training.

LE01—Helmet Inspection.

LE02—Oxygen Mask Inspection.

H010—Ergometry Testing.

H020—Dental Exam.

H030—Cholera.

H040—Flu Shot.

H050—Smallpox.

H060—Oral Polio.

H070—Tetanus

H080—Yellow Fever.

H090—TB Tine.

H100—Meningococcal.

H110—Typhoid.

H120—Hepatitis A.

H130—Hepatitis B.

Attachment 3

AIRCREW TRAINING DOCUMENTATION

★**A3.2. Instructions for AF Form 4022**. This folder is constructed of hard stock paper. The inside covers have tables for documenting training. AF Forms 4023, 4024, and 4025 and additional information (waivers, memorandums, etc.) will be attached through the centered holes of the folder. Training guides will be placed inside the folder. Obtain folder through the AF publications distribution system IAW AFI 37-161, *Distribution Management*. Comply with the following when documenting aircrew training. **USAFE may use 3-part training folder**.